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=> d his

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     FILE 'REGISTRY' ENTERED AT 13:35:52 ON 28 JUL 2009
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L3           245 S L1 FULL

=> s l3 and ed<12/18/2003
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                (ED<20031218)
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      67972949 CAPLUS/LC
L5         125 L4 AND CAPLUS/LC

=> s l4 not l5
L6           2 L4 NOT L5

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L6   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   295776-93-1  REGISTRY
ED   Entered STN:  19 Oct 2000
CN   Xanthylium, 9-[2-[[[(4S)-4-amino-4-carboxybutyl]amino]carbonyl]phenyl]-3,6-
     bis(ethylamino)-2,7-dimethyl-  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C31 H37 N4 O4
CI   COM
SR   CA

Absolute stereochemistry.
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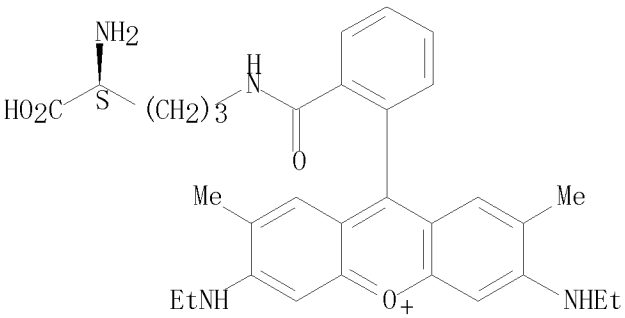


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L6   ANSWER 2 OF 2  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   295776-85-1  REGISTRY
ED   Entered STN:  19 Oct 2000
CN   Xanthylium, 3,6-bis(ethylamino)-2,7-dimethyl-9-[2-[[[6-oxo-6-
     (phenylmethoxy)hexyl]amino]carbonyl]phenyl]-  (CA INDEX NAME)
MF   C39 H44 N3 O4
CI   COM
SR   CA
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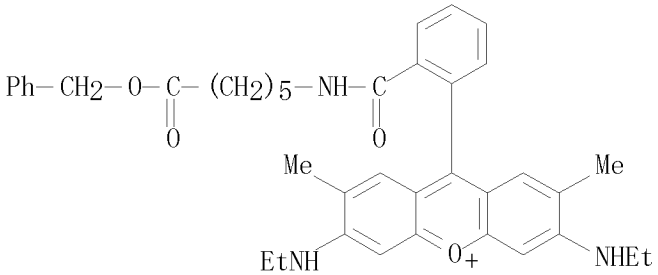


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FILE 'CAPLUS' ENTERED AT 13:39:05 ON 28 JUL 2009
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FILE COVERS 1907 - 28 Jul 2009  VOL 151 ISS 5
FILE LAST UPDATED: 27 Jul 2009  (20090727/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Jun 2009

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2009.

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substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family
of databases have been updated to include new citing references
information.  This enhancement may impact record import into
database management software.  For additional information, refer
to NEWS 22.
'.FIONA' IS DEFAULT FORMAT FOR 'CAPLUS' FILE

=> s l3
L7          87 L3

=> d 1-87 bib abs hitstr

L7   ANSWER 1 OF 87  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2009:767810  CAPLUS
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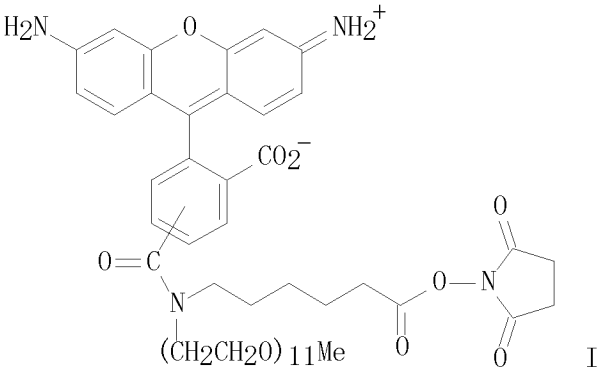
DN 151:96479
TI Fluorescent compounds for labeling biomolecules and cells and use in kits and assays
IN Mao, Fei; Leung, Wai-Yee; Cheung, Ching-Ying; Hoover, Hye Eun
PA Biotium, Inc., USA
SO PCT Int. Appl., 157pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009078970	A1	20090625	WO 2008-US13698	20081212

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2007-13956P P 20071214
GI



I

AB The present invention relates to fluorescent dyes in general. The present invention provides a wide range of fluorescent dyes and kits containing the same, which are applicable for labeling a variety of biomols., cells and microorganisms. The present invention also provides various methods of using the fluorescent dyes for research and development, forensic identification, environmental studies, diagnosis, prognosis, and/or treatment of disease conditions. Fluorescent dye I (preparation given) was conjugated with goat anti-mouse IgG and with aminophalloidin. Actin filaments were stained with phalloidin labeled with I. I conjugate was more photostable than a conjugate with Alex Fluor 488.

IT 1164239-34-2 1164239-38-6 1164239-41-1
RL: ARG (Analytical reagent use); PRPH (Prophetic); ANST (Analytical study); USES (Uses)
(as fluorescent xanthene dye; fluorescent compds. for labeling biomols.

and cells and use in kits and assays)
RN 1164239-34-2 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

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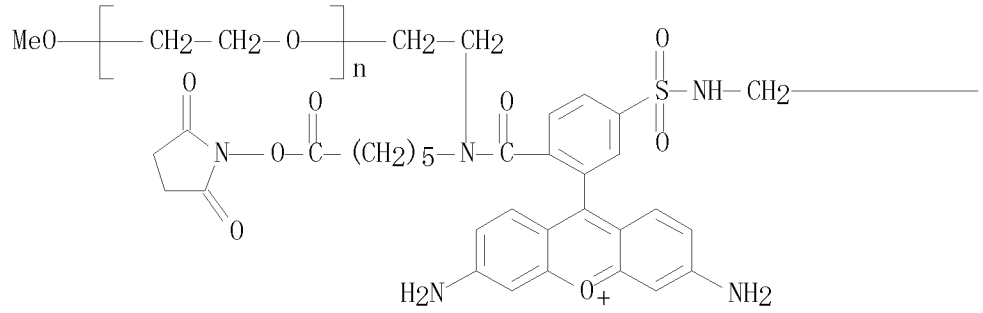

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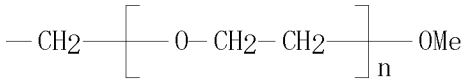

RN 1164239-38-6 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

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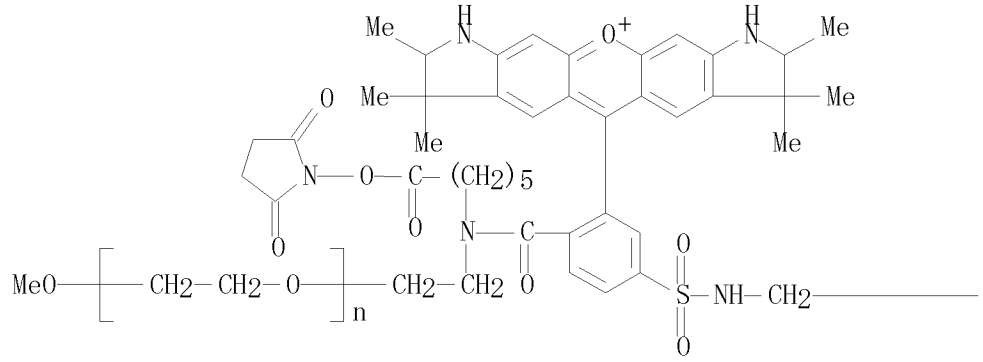

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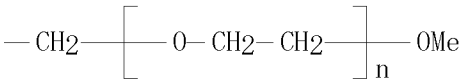

RN 1164239-41-1 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

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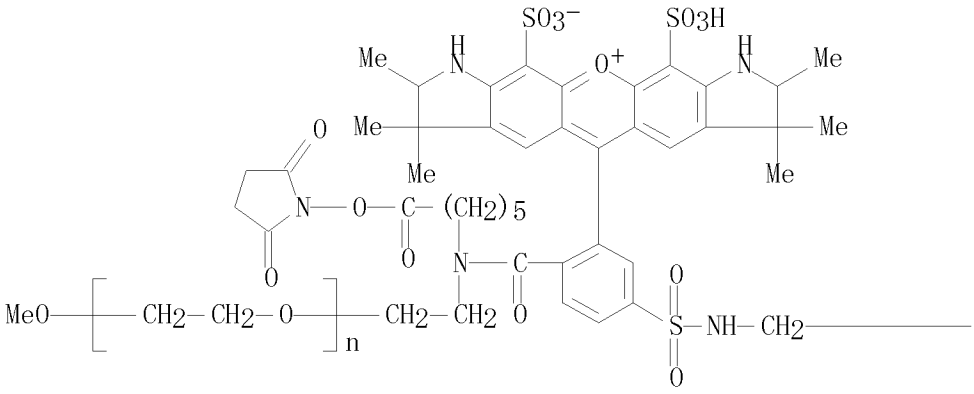

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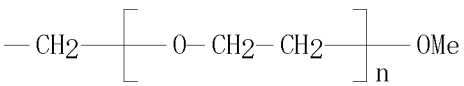


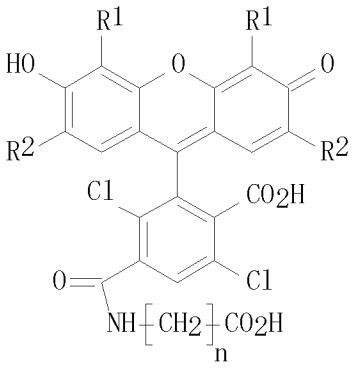
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2009:721677 CAPLUS

TI Synthesis of yellow fluorescent dyes suitable for protein labeling
IN Tian, Min; Wu, Xianglong; Diwu, Zhenjun; Shi, Zhen
PA Northwest University, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 19pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 101451018	A	20090610	CN 2007-10188464	20071203
PRAI	CN 2007-10188464		20071203		

GI

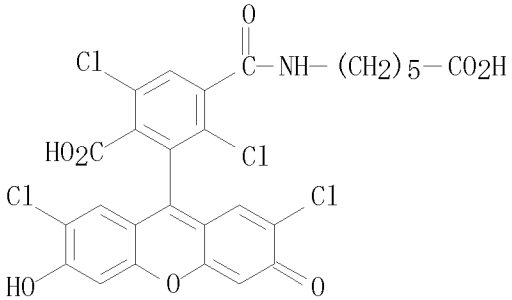


I

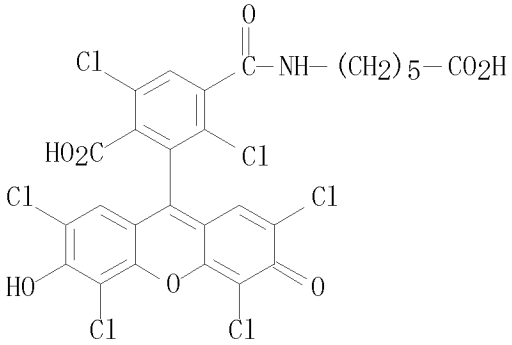
AB The yellow fluorescent dyes (I), where R1, R2=Cl, F, Br or H, n=3-7, are synthesized by steps of: (1) condensation reacting substituted resorcinol with 3,6-dichloro-5-carboxy-phthalic anhydride under acidic condition to obtain substituted fluorescein condensate; (2) esterifying with pivalic anhydride to obtain substituted fluorescein pivalate; (3) reacting with diisopropylamine to obtain substituted 6-carboxyfluorescein pivalate diisopropyl ammonium salt; (4) reacting with hydrochloric acid to obtain substituted 6-carboxyfluorescein pivalate; (5) esterifying with disuccinimidyl carbonate to obtain substituted dipivaloyl-6-carboxyfluorescein-N-hydroxysuccinimidyl carbonate and (6) substituting with C3-C7 linear amino acid.

IT 1166837-59-7P 1166837-80-4P 1166838-08-9P
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); IMF (Industrial manufacture); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of yellow fluorescent dyes for protein labeling)

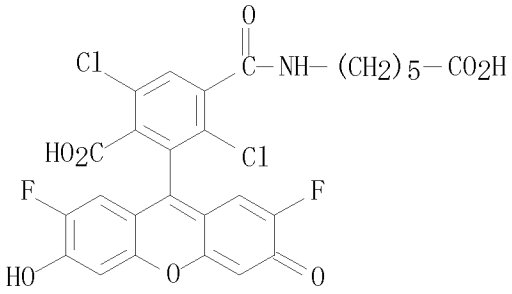
RN 1166837-59-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 1166837-80-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 1166838-08-9 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



L7 ANSWER 3 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2009:710096 CAPLUS
DN 151:59174
TI Nanofunctional silica particles and manufacturing method thereof
IN Nakamura, Michihiro
PA The University of Tokushima, Japan
SO PCT Int. Appl., 87pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2009072657	A1	20090611	WO 2008-JP72285	20081208

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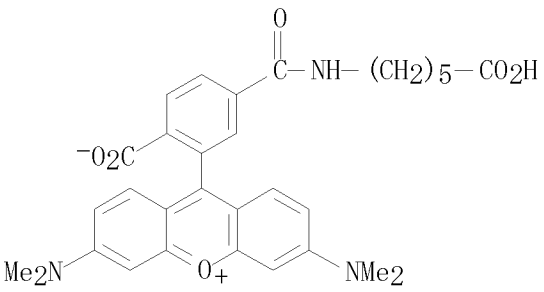
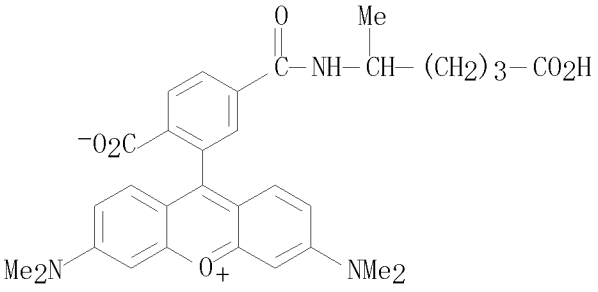
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,

AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRAI JP 2007-316466 A 20071206
AB The nanofunctional silica particles have excellent functionality and quality, and are mass-produced at low costs. The nanofunctional silica particles to be used clin., such as in imaging or assay, diagnosis, or treatment, or for bioresearch; and comprise a coating layer containing ≥1 of silica compds. selected from mercaptopropyl trimethoxysilane (MPS), mercaptopropyl triethoxysilane (MPES), mercaptopropyl methyldimethoxysilane (MPDMS), trimethoxy[2-(7-oxabicyclo[4.1.0]-hept-3-yl)ethyl]silane (EpoPS), thiocyanatopropyl triethoxysilane (TCPS) and acryloxypropyl trimethoxysilane (ACPS).
IT 455253-07-3 1160743-02-1
RL: TEM (Technical or engineered material use); USES (Uses)
(production of nanofunctional silica particles)
RN 455253-07-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[(5-carboxypentyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



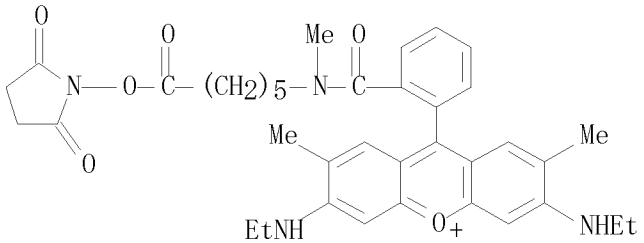
RN 1160743-02-1 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

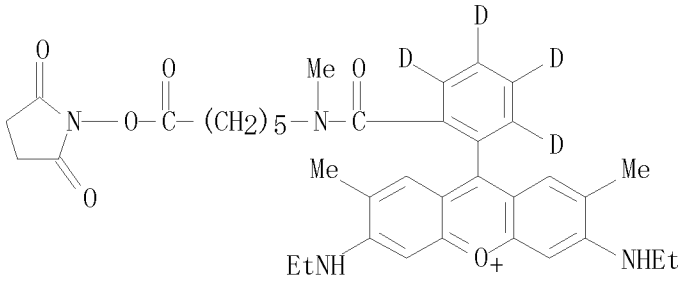
L7 ANSWER 4 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:1254934 CAPLUS
DN 149:527887
TI Quantification of Isotope Encoded Proteins in 2-D Gels Using Surface Enhanced Resonance Raman
AU Knudsen, Giselle M.; Davis, Brandon M.; Deb, Shirshendu K.; Loethen, Yvette; Gudihal, Ravindra; Perera, Pradeep; Ben-Amotz, Dor; Davisson, V. Jo
CS Department of Medicinal Chemistry and Molecular Pharmacology and the Bindley Bioscience Center at Discovery Park and Department of Chemistry, Purdue University, West Lafayette, IN, 47907, USA

SO Bioconjugate Chemistry (2008), 19(11), 2212-2220
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB A strategy for quantification of multiple protein isoforms from a complex sample background is demonstrated, combining isotopomeric rhodamine 6G (R6G) labels and surface-enhanced Raman in polyacrylamide matrix. The procedure involves isotope-encoding by lysine-labeling with (R6G) active ester reagents, isoform separation by 2-DGE, fluorescence quantification using internal standardization to water, and silver nanoparticle deposition followed by surface-enhanced Raman detection. R6G sample encoding and standardization enabled the determination of total protein concentration and the distribution of specific isoforms using the combined detection approach of water-referenced fluorescence spectral imaging and ratiometric quantification. A detection limit of approx. 13.5 picomolar R6G-labeled protein was determined for the surface-enhanced Raman in a gel matrix (15-fold lower than fluorescence). High quantification accuracies for small differences in protein populations at low nanogram abundance were demonstrated for human GMP synthetase (hGMPS) either as purified protein samples in a single-point determination mode (3% relative standard deviation, RSD%) or as HCT116 human cancer cellular lysate in an imaging application (with 16% RSD%). These results represent a prototype for future applications of isotopic surface-enhanced resonance Raman scatter to quantification of protein distributions.
IT 1040134-67-5 1040134-69-7
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(quantification of isotope encoded proteins in 2-D gels using surface enhanced resonance Raman and isotopomeric rhodamine 6G labels)
RN 1040134-67-5 CAPLUS
CN Xanthylium, 9-[2-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]methylamino]carbonyl]phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl^-

RN 1040134-69-7 CAPLUS
CN Xanthylium, 9-[6-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]methylamino]carbonyl]phenyl-2,3,4,5-d4]-3,6-bis(ethylamino)-2,7-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:885880 CAPLUS
DN 149:200790
TI Preparation of sulfonamide derivatives of xanthene as fluorescent detection reagents
IN Frank, Wilhelm G.; Wenzel, Matthias S.; Czerney, Peter T.; Desai, Surbhi; Hermanson, Greg
PA Pierce Biotechnology, Inc., USA
SO Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

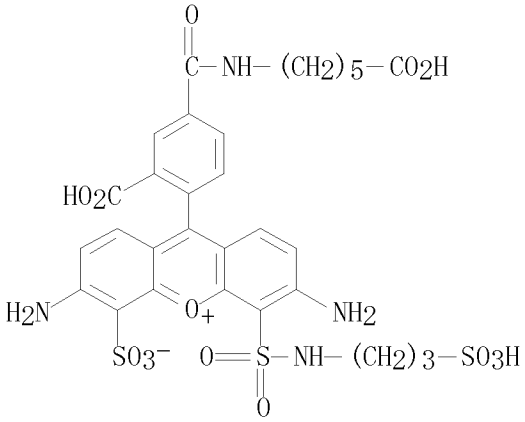
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1947095	A1	20080723	EP 2008-250265	20080122
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS				
US 20080177086	A1	20080724	US 2007-625379	20070122
JP 2008231093	A	20081002	JP 2008-10915	20080121
PRAI US 2007-625379	A	20070122		

OS CASREACT 149:200790; MARPAT 149:200790
GI

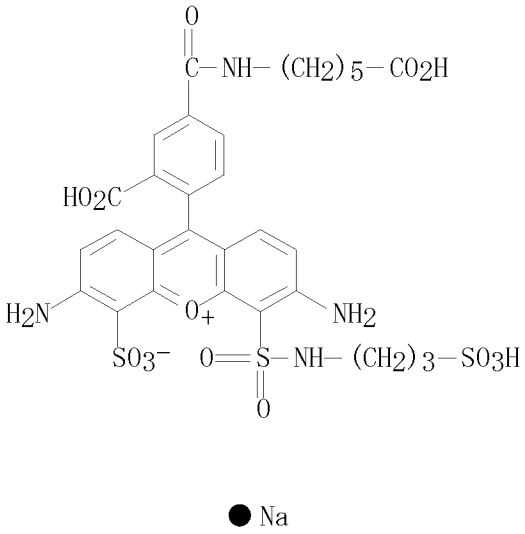
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Disclosed are compds. I [R11 = Q1 or Q2; R1, R2 = -H, -alkyl or -ω-sulfoalkyl; X, Y = -O-, -OH, -SH, etc.; Z = -O- or OH; U = -O-, -OH or NH-L-SO2Z; L = divalent linear (-(CH2)o-), crossed, or cyclic alkane group that can be substituted by at least one atom selected from the group consisting of oxygen, substituted nitrogen and/or sulfur; o = 1-15; Kat = Li, Na, K, etc.; An = F, Cl, Br, etc.; m = 1-6 necessary to compensate the neg. or pos. charge from the dye moiety; n = 0-12] were prepared Thus, a multi-step synthesis of II·2EtN+H(iso-Pr)2 (III), starting from 5-(6)-carboxyrhodamine 110 hydrochloride, was given. It was demonstrated that compds. I are useful as fluorescent dyes in biol. assays. For example, rabbit IgG was detected at a level of 2 ng/well with the III-GAR (Goat anti-Rabbit) conjugate.

IT 1041432-12-5P
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of sulfonamide derivs. of xanthene as fluorescent detection reagents)
RN 1041432-12-5 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

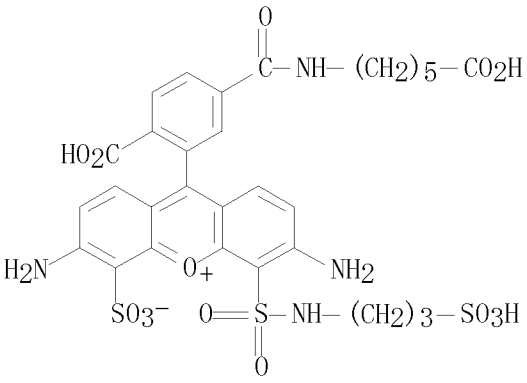


IT 1041432-01-2P
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of sulfonamide derivs. of xanthene as fluorescent detection reagents)
RN 1041432-01-2 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[(5-carboxypentyl)amino]carbonyl]phenyl]-4-sulfo-5-[[(3-sulfopropyl)amino]sulfonyl]-, inner salt, sodium salt (1:1) (CA INDEX NAME)



IT 1041432-02-3P 1041432-04-5P 1041432-06-7P
1041432-07-8P 1041432-08-9P
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of sulfonamide derivs. of xanthene as fluorescent detection reagents)

RN 1041432-02-3 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-5-[[(5-carboxypentyl)amino]carbonyl]phenyl]-4-sulfo-5-[[(3-sulfopropyl)amino]sulfonyl]-, inner salt, sodium salt (1:1) (CA INDEX NAME)



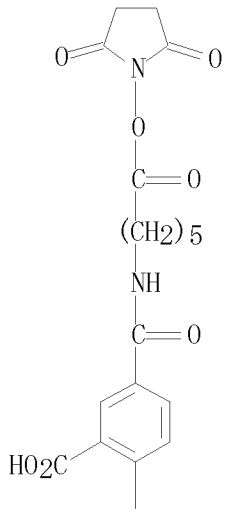
● Na

RN 1041432-04-5 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-4-sulfo-5-[[(3-sulfopropyl)amino]sulfonyl]-, inner salt, compd. with N-ethyl-N-(1-methylethyl)-2-propanamine (1:2) (CA INDEX NAME)

CM 1

CRN 1041432-03-4
CMF C34 H35 N5 O16 S3

PAGE 1-A



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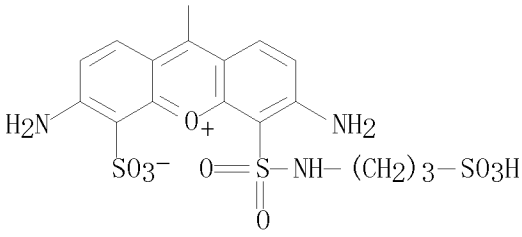
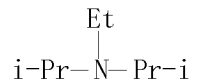


CM 2

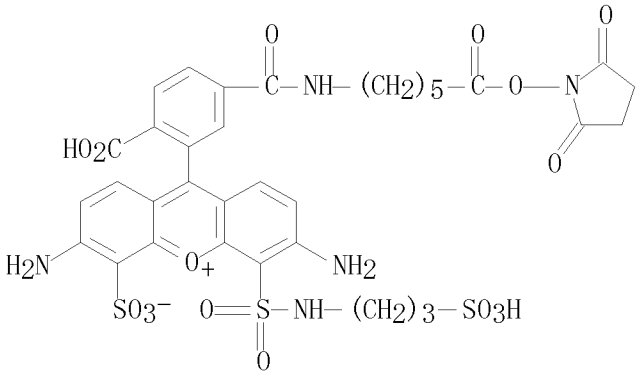
CRN 7087-68-5
CMF C8 H19 N



RN 1041432-06-7 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-5-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-4-sulfo-5-[[(3-sulfopropyl)amino]sulfonyl]-, inner salt, compd. with N-ethyl-N-(1-methylethyl)-2-propanamine (1:2) (CA INDEX NAME)

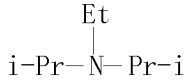
CM 1

CRN 1041432-05-6
CMF C34 H35 N5 O16 S3



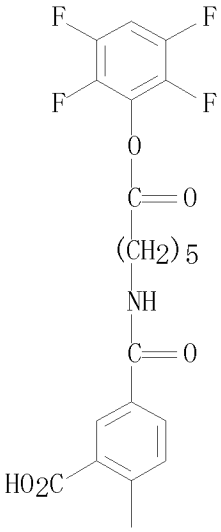
CM 2

CRN 7087-68-5
CMF C8 H19 N



RN 1041432-07-8 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[[6-oxo-6-(2,3,5,6-tetrafluorophenoxy)hexyl]amino]carbonyl]phenyl]-4-sulfo-5-[[(3-sulfopropyl)amino]sulfonyl]-, inner salt, sodium salt (1:1) (CA INDEX NAME)

PAGE 1-A



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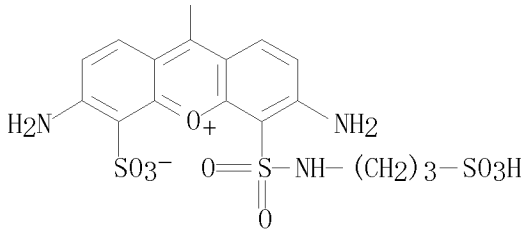
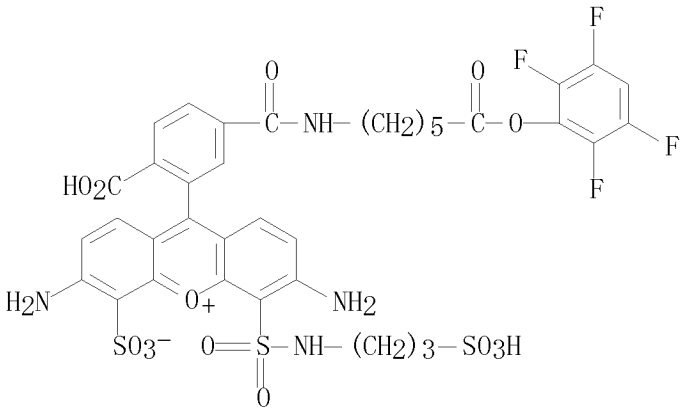


● Na

RN 1041432-08-9 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-5-[[[6-oxo-6-(2,3,5,6-tetrafluorophenoxy)hexyl]amino]carbonyl]phenyl]-4-sulfo-5-[[(3-sulfopropyl)amino]sulfonyl]-, inner salt, sodium salt (1:1) (CA INDEX NAME)



● Na

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:799316 CAPLUS
DN 149:170484
TI Detection and Relative Quantification of Proteins by Surface Enhanced Raman Using Isotopic Labels
AU Deb, Shirshendu K.; Davis, Brandon; Knudsen, Giselle M.; Gudihal, Ravindra; Ben-Amotz, Dor; Davisson, V. Jo
CS Department of Medicinal Chemistry and Molecular Pharmacology, Bindley Bioscience Center, and Department of Chemistry, Purdue University, West Lafayette, IN, 47907, USA
SO Journal of the American Chemical Society (2008), 130(30), 9624-9625
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English

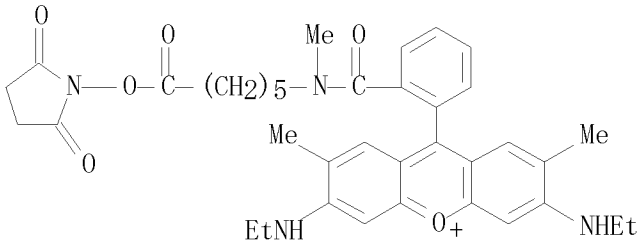
OS CASREACT 149:170484

AB Accurate quantification of protein content and composition has been achieved using isotope-edited surface enhanced resonance Raman spectroscopy. Synthesis of isotopomeric Rhodamine dye-linked bioconjugation reagents enabled direct labeling of surface lysines on a variety of proteins. When separated in polyacrylamide gels and stained with silver nanoparticles, the spectral signatures reflect the expected statistical distribution of isotopomeric labels on the labeled proteins in the gel matrix format without interference from protein features.

IT 1040134-67-5P 1040134-69-7P
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(detection and relative quantification of proteins by surface enhanced Raman using isotopic labels, SDS-polyacrylamide gel electrophoresis, and silver nanoparticle staining)

RN 1040134-67-5 CAPLUS

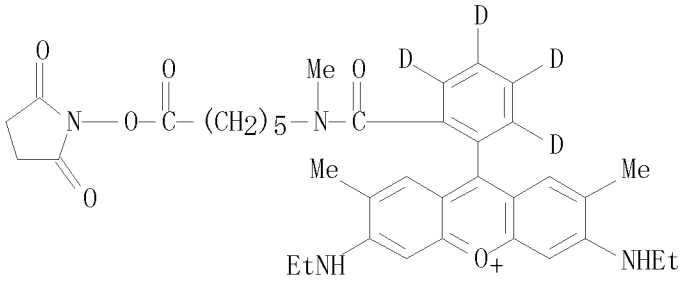
CN Xanthylium, 9-[2-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]methylamino]carbonyl]phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RN 1040134-69-7 CAPLUS

CN Xanthylium, 9-[6-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]methylamino]carbonyl]phenyl-2,3,4,5-d4]-3,6-bis(ethylamino)-2,7-dimethyl-, chloride (1:1) (CA INDEX NAME)



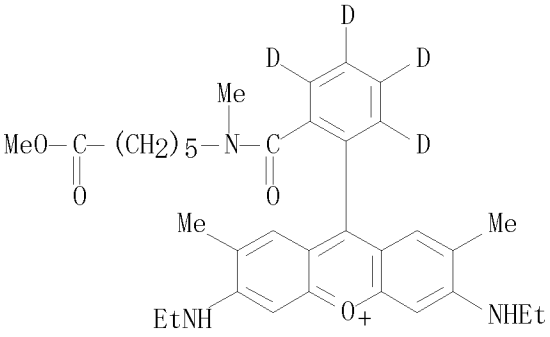
● Cl⁻

IT 1040134-61-9P 1040134-65-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(detection and relative quantification of proteins by surface enhanced

Raman using isotopic labels, SDS-polyacrylamide gel electrophoresis, and silver nanoparticle staining)

RN 1040134-61-9 CAPLUS

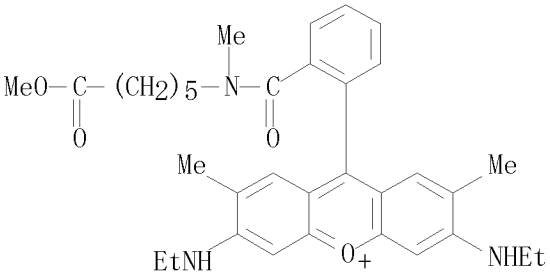
CN Xanthylium, 3,6-bis(ethylamino)-9-[6-[[(6-methoxy-6-oxohexyl)methylamino]carbonyl]phenyl-2,3,4,5-d4]-2,7-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl^-

RN 1040134-65-3 CAPLUS

CN Xanthylium, 3,6-bis(ethylamino)-9-[2-[[(6-methoxy-6-oxohexyl)methylamino]carbonyl]phenyl]-2,7-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl^-

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2008:486445 CAPLUS

DN 149:55630

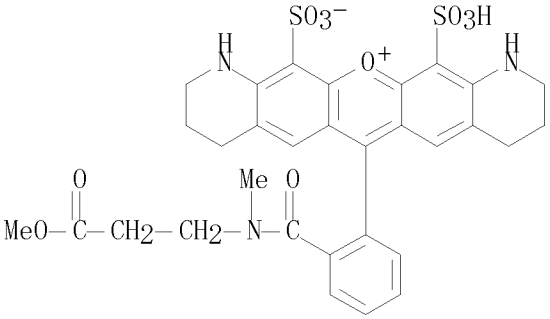
TI Photostable, amino reactive and water-soluble fluorescent labels based on sulfonated rhodamine with a rigidized xanthene fragment

AU Boyarskiy, Vadim P.; Belov, Vladimir N.; Medda, Rebecca; Hein, Birka; Bossi, Mariano; Hell, Stefan W.

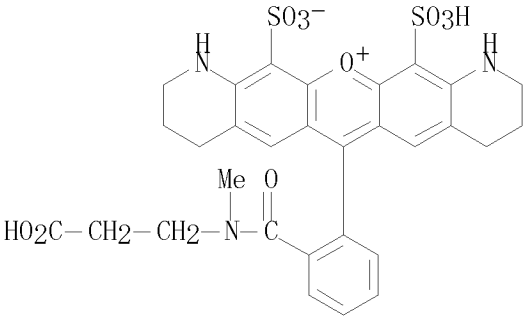
CS Department of NanoBiophotonics, Max Planck Institute for Biophysical Chemistry, Goettingen, 37077, Germany

SO Chemistry--A European Journal (2008), 14(6), 1784-1792
CODEN: CEUJED; ISSN: 0947-6539

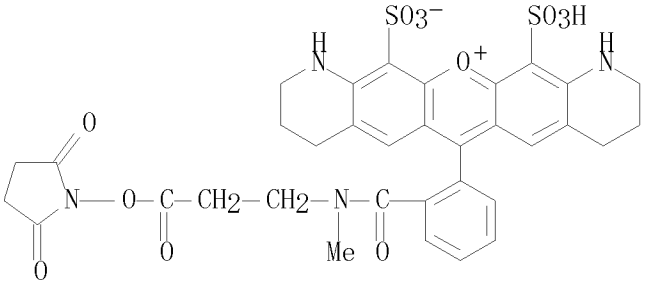
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 149:55630
AB Highly water soluble fluorescent dyes were synthesized and transformed into new amino reactive fluorescent labels for biol. microscopy. To this end, a rhodamine was sulfonated with 30% SO3 in H2SO4 and afforded the water-soluble disulfonic acid. Amidation of the carboxy group in this compound with 2-(methylamino)ethanol in the presence of O-(7-azabenzotriazol-1-yl)-N,N,N',N'-tetramethyluronium hexafluorophosphate led to an alc., which was transformed into an amino reactive mixed carbonate with di(N-succinimidyl)carbonate and Et3N. Reaction of the carboxy group in the original disulfonic acid with MeNH(CH2)2CO2Me and N,N,N',N'-tetramethyl-O-(N-succinimidyl)-uronium·BF4- yielded the Me ester. After saponification of the aliphatic carboxy group in this Me ester, the compound was converted into an NHS-ester. Heating of tetrahydro-7-quinolinol with trimellitic anhydride in H3PO4 gave a 1:1 mixture of rhodamine dicarboxylic acid regioisomers. One of the regioisomers was isolated, sulfonated with 30% SO3 in H2SO4, and the resulting disulfonic acid was used for the synthesis of the mono NHS-ester in which the sterically unhindered carboxy group was selectively activated with N-hydroxysuccinimide. Three of the sulfonated rhodamines are soluble in water (up to 0.1 M) and have excellent photostabilities and large fluorescence quantum yields. Subdiffraction resolution images of tubulin filaments of mammalian cells stained with these dyes illustrate their applicability as labels for stimulated emission depletion microscopy and other fluorescence techniques.
IT 1032434-44-8P 1032434-46-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of fluorescent labels based on sulfonated rhodamines with rigidized xanthene fragment)
RN 1032434-44-8 CAPLUS
CN Pyrano[3,2-g:5,6-g']diquinolin-13-ium, 1,2,3,4,8,9,10,11-octahydro-6-[2-[[(3-methoxy-3-oxopropyl)methylamino]carbonyl]phenyl]-12,14-disulfo-, inner salt (CA INDEX NAME)



RN 1032434-46-0 CAPLUS
CN Pyrano[3,2-g:5,6-g']diquinolin-13-ium, 6-[2-[[(2-carboxyethyl)methylamino]carbonyl]phenyl]-1,2,3,4,8,9,10,11-octahydro-12,14-disulfo-, inner salt (CA INDEX NAME)



IT 1032434-47-1P
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of fluorescent labels based on sulfonated rhodamines with rigidized xanthene fragment)
RN 1032434-47-1 CAPLUS
CN Pyrano[3,2-g:5,6-g']diquinolin-13-ium, 6-[2-[[[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]methylamino]carbonyl]phenyl]-1,2,3,4,8,9,10,11-octahydro-12,14-disulfo-, inner salt (CA INDEX NAME)



OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:353231 CAPLUS
DN 148:379494
TI Preparation of spirobenzopyran(homo)piperidines and related compounds as nootropics.
IN Dolle, Roland E.; Lebourdonnec, Bertrand
PA Adolor Corporation, USA
SO PCT Int. Appl., 251pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2008033299	A2	20080320	WO 2007-US19661	20070907
	WO 2008033299	A3	20081120		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,

KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

AU	2007294968	A1	20080320	AU 2007-294968	20070907
CA	2662115	A1	20080320	CA 2007-2662115	20070907
US	20080119452	A1	20080522	US 2007-851995	20070907
EP	2063886	A2	20090603	EP 2007-811730	20070907

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IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR,
AL, BA, HR, MK, RS

PRAI US 2006-843979P P 20060912
WO 2007-US19661 W 20070907
OS MARPAT 148:379494
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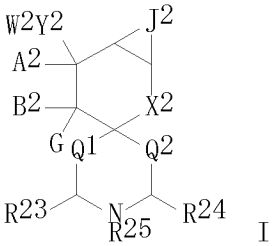
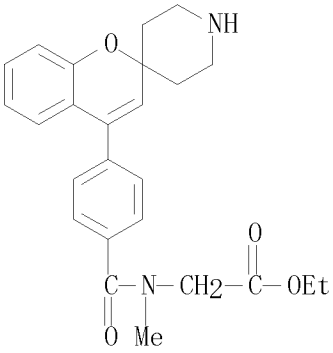


I

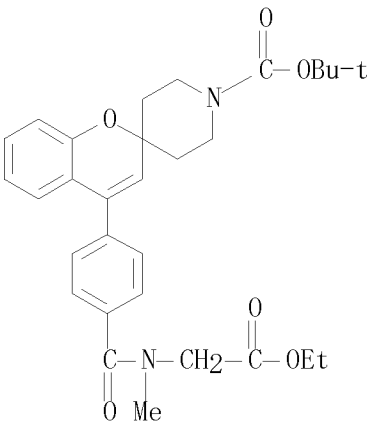
AB Title compds. [I; Y2 = bond, (CRcRd)k; Rc, Rd, Re, Rf = H, alkyl; W2 = aryl, alkylaryl, heterocycloalkylaryl, heteroaryl, alkylheteroaryl, heteroarylalkyl, alkylheteroarylaryl; R23, R24 = H, alkyl; R25 = H, alkyl, alkenylmethyl, alkynylmethyl, cycloalkyl, alkylcycloalkyl, aralkyl, heteroarylalkyl; k = 1-3; p, s = 0-3; p+s ≤4; A2, B2 = H, alkyl; A2B2 = double bond; G = H, alkyl; X2 = CH2, O, S, SO2; J2 = atoms to form a 6-10 membered aryl; Q1 = (CHRe)p; Q2 = (CHRf)s], were prepared for treatment of cognitive dysfunction and memory loss. Thus, 442 anaologs of I were prepared, two of which showed activity in the object recognition task in rats at 3 mg/kg orally with 71-73% of time spent on novel objects, vs. 63% for vehicle-treated controls.

IT 850174-29-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of spirobenzopyran(homo)piperidines and related compds. as nootropics)

RN 850174-29-7 CAPLUS
CN Glycine, N-methyl-N-(4-spiro[2H-1-benzopyran-2,4'-piperidin]-4-ylbenzoyl)-, ethyl ester (CA INDEX NAME)



IT 1013334-56-9P
RL: PRPH (Prophetic); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of spirobenzopyran(homo)piperidines and related compds. as nootropics)
RN 1013334-56-9 CAPLUS
CN Spiro[2H-1-benzopyran-2,4'-piperidine]-1'-carboxylic acid, 4-[4-[[(2-ethoxy-2-oxoethyl)methylamino]carbonyl]phenyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



L7 ANSWER 9 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:149892 CAPLUS
DN 149:465534
TI Synthesis and characterization of photoswitchable fluorescent silica nanoparticles
AU Foelling, Jonas; Polyakova, Svetlana; Belov, Vladimir; van Blaaderen, Alfons; Bossi, Mariano L.; Hell, Stefan W.
CS Department of NanoBiophotonics, Max Planck Institute for Biophysical Chemistry, Goettingen, 37077, Germany
SO Small (2008), 4(1), 134-142
CODEN: SMALBC; ISSN: 1613-6810
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 149:465534
AB We have designed and synthesized a new functional (amino reactive) highly efficient fluorescent mol. switch (FMS) with a photochromic diarylethene and a rhodamine fluorescent dye. The reactive group in this

FMS-N-hydroxysuccinimide ester- allows selective labeling of amino containing mols. or other materials. In ethanolic solns., the compound displays a large fluorescent quantum yield of 52% and a large fluorescence modulation ratio (94%) between two states that may be interconverted with red and near-UV light. Silica nanoparticles incorporating the new FMS were prepared and characterized, and their spectroscopic and switching properties were also studied. The dye retained its properties after the incorporation into the silica, thereby allowing light-induced reversible high modulation of the fluorescence signal of a single particle for up to 60 cycles, before undergoing irreversible photobleaching. Some applications of these particles in fluorescence microscopy are also demonstrated. In particular, subdiffraction images of nanoparticles were obtained, in the focal plane of a confocal microscope.

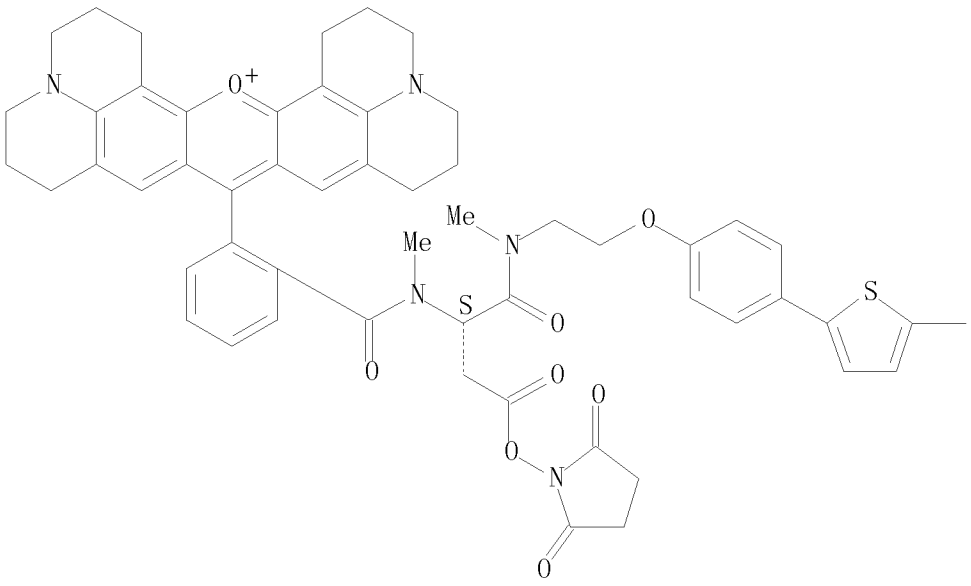
IT 1070867-76-3P
RL: ARG (Analytical reagent use); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(synthesis and characterization of photoswitchable fluorescent silica nanoparticles)

RN 1070867-76-3 CAPLUS

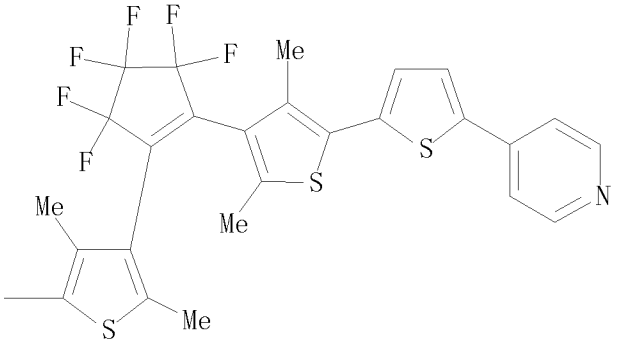
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-[[[(1S)-1-[[[2-[4-[4'-[2-[3,5-dimethyl-5'-(4-pyridinyl)[2,2'-bithiophen]-4-yl]-3,3,4,4,5,5-hexafluoro-1-cyclopenten-1-yl]-3',5'-dimethyl[2,2'-bithiophen]-5-yl]phenoxy]ethyl]methylamino]carbonyl]-3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]methylamino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



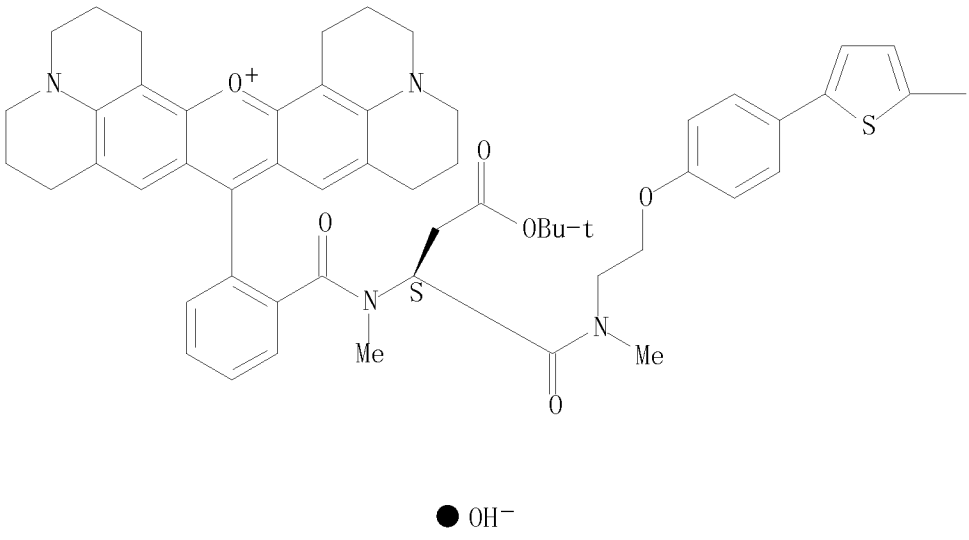
IT 1070867-74-1P
RL: NUU (Other use, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis and characterization of photoswitchable fluorescent silica nanoparticles)

RN 1070867-74-1 CAPLUS

CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-[[[(1S)-3-(1,1-dimethylethoxy)-1-[[[2-[4-[4'-[2-[3,5-dimethyl-5'-(4-pyridinyl)[2,2'-bithiophen]-4-yl]-3,3,4,4,5,5-hexafluoro-1-cyclopenten-1-yl]-3',5'-dimethyl[2,2'-bithiophen]-5-yl]phenoxy]ethyl]methylamino]carbonyl]-3-oxopropyl]methylamino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, hydroxide (1:1) (CA INDEX NAME)

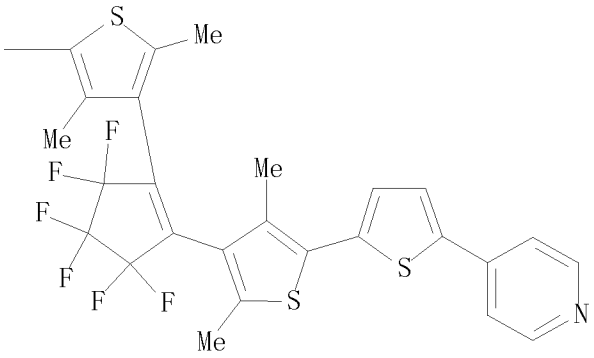
Absolute stereochemistry.

PAGE 1-A



● OH^-

PAGE 1-B

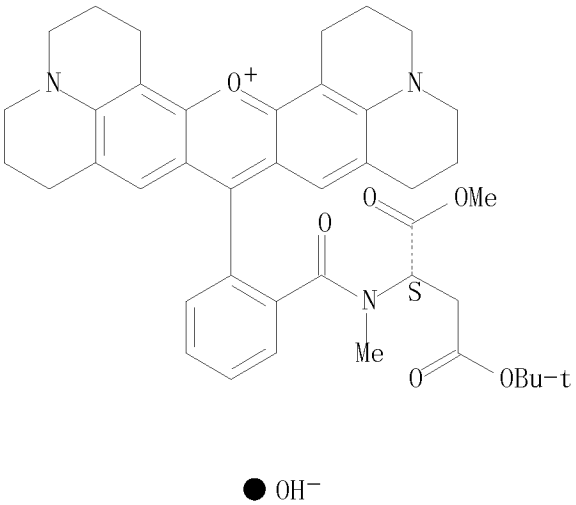


IT 1070867-72-9P 1070867-73-0P 1070867-75-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and characterization of photoswitchable fluorescent silica nanoparticles)

RN 1070867-72-9 CAPLUS

CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-[[[(1S)-3-(1,1-dimethylethoxy)-1-(methoxycarbonyl)-3-oxopropyl]methylamino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, hydroxide (1:1) (CA INDEX NAME)

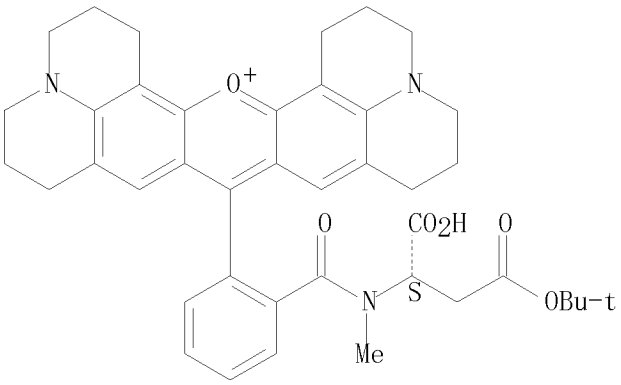
Absolute stereochemistry.



RN 1070867-73-0 CAPLUS

CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-[[[(1S)-1-carboxy-3-(1,1-dimethylethoxy)-3-oxopropyl]methylamino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, hydroxide (1:1) (CA INDEX NAME)

Absolute stereochemistry.

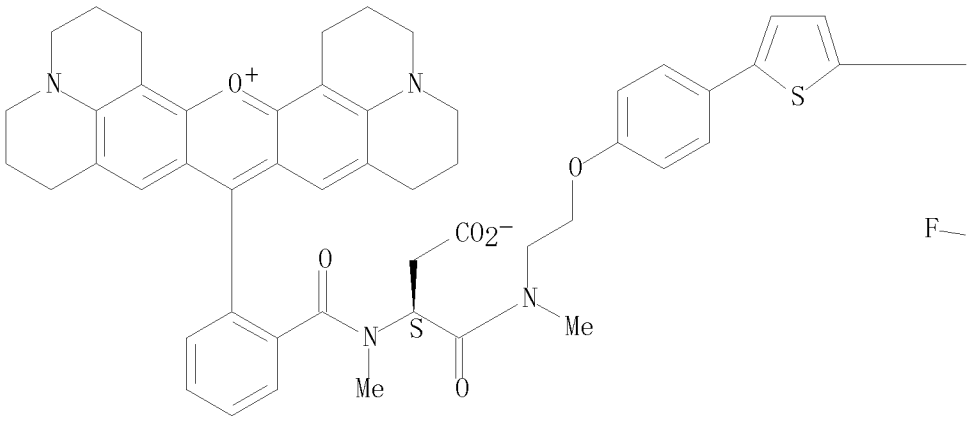


● OH^-

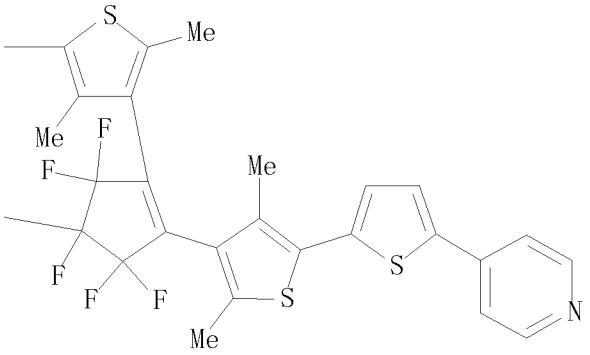
RN 1070867-75-2 CAPLUS
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-[[[(1S)-1-(carboxymethyl)-2-[[2-[4-[4'-[2-[3,5-dimethyl-5'-(4-pyridinyl)[2,2'-bithiophen]-4-yl]-3,3,4,4,5,5-hexafluoro-1-cyclopenten-1-yl]-3',5'-dimethyl[2,2'-bithiophen]-5-yl]phenoxy]ethyl]methylamino]-2-oxoethyl]methylamino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:1364408 CAPLUS
DN 148:35065
TI Rhodamine fluorescent dye compounds and the use of their labeled conjugates
IN Romanov, Nikolai Nikolaevich; Barnes, Colin Lloyd
PA Solexa Limited, UK
SO PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007135368	A2	20071129	WO 2007-GB1770	20070516
	WO 2007135368	A3	20080306		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
	EP 2021415	A2	20090211	EP 2007-732794	20070516
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
PRAI	US 2006-801270P	P	20060518		
	WO 2007-GB1770	W	20070516		

OS MARPAT 148:35065
AB The invention relates to rhodamine dyes particularly suitable for methods of fluorescence detection and sequencing synthesis. The dyes and labeled conjugates are useful as mol. probes in a variety of applications, such as in assays involving staining of cells, protein binding, and anal. of nucleic acids, such as hybridization assays and nucleic acid sequencing.

Thus, a rhodamine dye bearing N-propylsulfonic acid ammonium salt was prepared and tested.

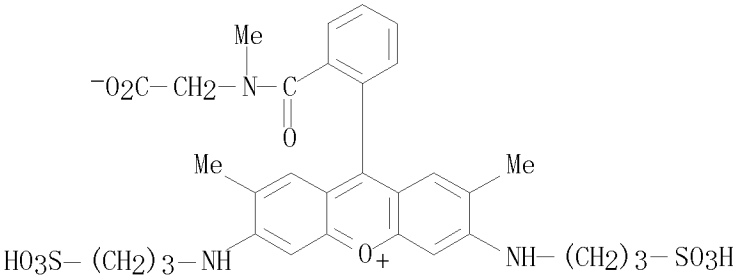
IT 958868-16-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of rhodamine fluorescent dye compds. and use in biomol. staining or labeling)

RN 958868-16-1 CAPLUS

CN Xanthylium, 9-[2-[[(carboxymethyl)methylamino]carbonyl]phenyl]-2,7-dimethyl-3,6-bis[(3-sulfopropyl)amino]-, inner salt, compd. with N,N-diethylethanamine (1:1) (CA INDEX NAME)

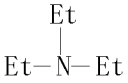
CM 1

CRN 958868-15-0
CMF C31 H35 N3 O10 S2



CM 2

CRN 121-44-8
CMF C6 H15 N



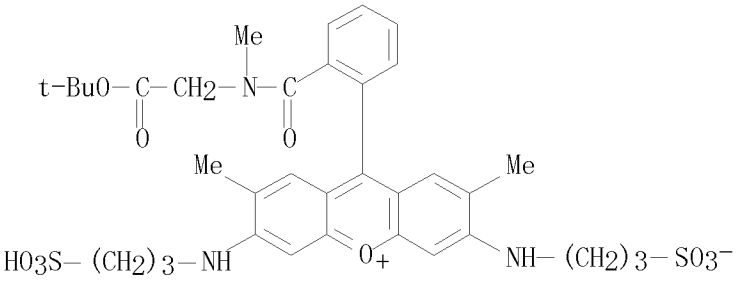
IT 958868-14-9P 958868-18-3P 958868-24-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of rhodamine fluorescent dye compds. and use in biomol. staining or labeling)

RN 958868-14-9 CAPLUS

CN Xanthylium, 9-[2-[[[2-(1,1-dimethylethoxy)-2-oxoethyl]methylamino]carbonyl]phenyl]-2,7-dimethyl-3,6-bis[(3-sulfopropyl)amino]-, inner salt, compd. with N,N-diethylethanamine (1:1) (CA INDEX NAME)

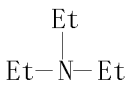
CM 1

CRN 958868-13-8
CMF C35 H43 N3 O10 S2



CM 2

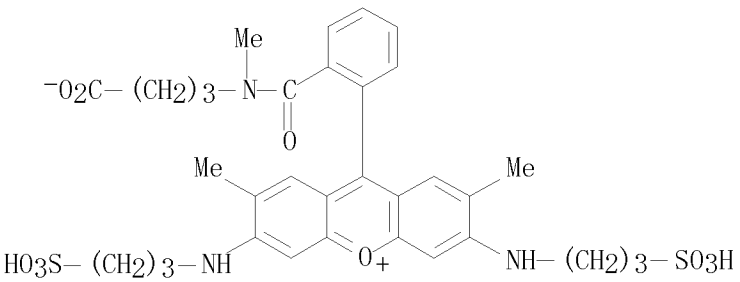
CRN 121-44-8
CMF C6 H15 N



RN 958868-18-3 CAPLUS
CN Xanthylium, 9-[2-[[(3-carboxypropyl)methylamino]carbonyl]phenyl]-2,7-dimethyl-3,6-bis[(3-sulfopropyl)amino]-, inner salt, compd. with N,N-diethylethanamine (1:1) (CA INDEX NAME)

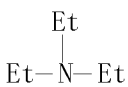
CM 1

CRN 958868-17-2
CMF C33 H39 N3 O10 S2



CM 2

CRN 121-44-8
CMF C6 H15 N

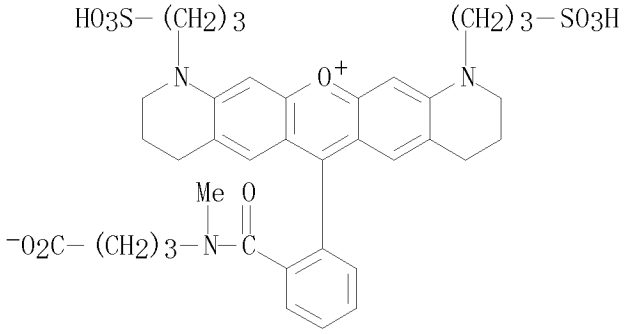


RN 958868-24-1 CAPLUS

CN Pyrano[3,2-g:5,6-g']diquinolin-13-ium, 6-[2-[[(3-carboxypropyl)methylamino]carbonyl]phenyl]-1,2,3,4,8,9,10,11-octahydro-1,11-bis(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (CA INDEX NAME)

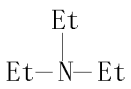
CM 1

CRN 958868-23-0
CMF C37 H43 N3 O10 S2



CM 2

CRN 121-44-8
CMF C6 H15 N



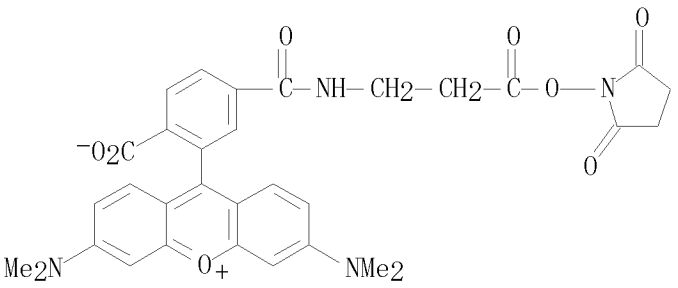
L7 ANSWER 11 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:1115969 CAPLUS
DN 147:536979
TI Yoctomole analysis of ganglioside metabolism in PC12 cellular homogenates
AU Whitmore, Colin D.; Olsson, Ulf; Larsson, E. Andreas; Hindsgaul, Ole; Palcic, Monica M.; Dovichi, Norman J.
CS Department of Chemistry, University of Washington, Seattle, WA, USA
SO Electrophoresis (2007), 28(17), 3100-3104
CODEN: ELCTDN; ISSN: 0173-0835
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB The authors report an ultrasensitive method for the anal. of glycosphingolipid catabolism. The substrate GM1 and the set of seven metabolites into which it can be degraded (GA1, GM2, GA2, GM3, LacCer, GlcCer, and Cer) were labeled with the highly fluorescent dye tetramethylrhodamine. CE [capillary electrophoresis] with LIF detection was used to assay these compds. with 150±80yoctomole mass (1 ymol = 10-24 mol = 0.6 copies) detection limits and 5±3pM concentration detection limits. An alignment algorithm based on migration of two components was employed to correct for drift in the separation The within-day and between-day precision in peak height was 20%, in peak width 15%, and in adjusted migration time 0.03%. After normalization to total sample injected, the RSD in peak height reduced to 2-6%, which approaches the limit set by mol.

shot noise in the number of mols. taken for anal. PC12 cells were incubated with the labeled GM1. Fluorescent microscopy demonstrated uptake by the cells. CE was used to sep. a cellular homogenate prepared from these cells. A set of peaks was observed, which were tentatively identified based on comigration with the stds. Roughly 120 pL of homogenate was injected, which contained a total of 150 zmol of labeled substrate and products. Metabolite that preserves the fluorescent label can be detected at the yoctomole level, which should allow characterization of this metabolic pathway in single cells.

IT 933058-16-3
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(yoctomole anal. of ganglioside metabolism in PC12 cellular homogenates by capillary electrophoresis with laser-induced fluorescence detection)

RN 933058-16-3 CAPLUS

CN Xanthylium, 9-[2-carboxy-5-[[[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

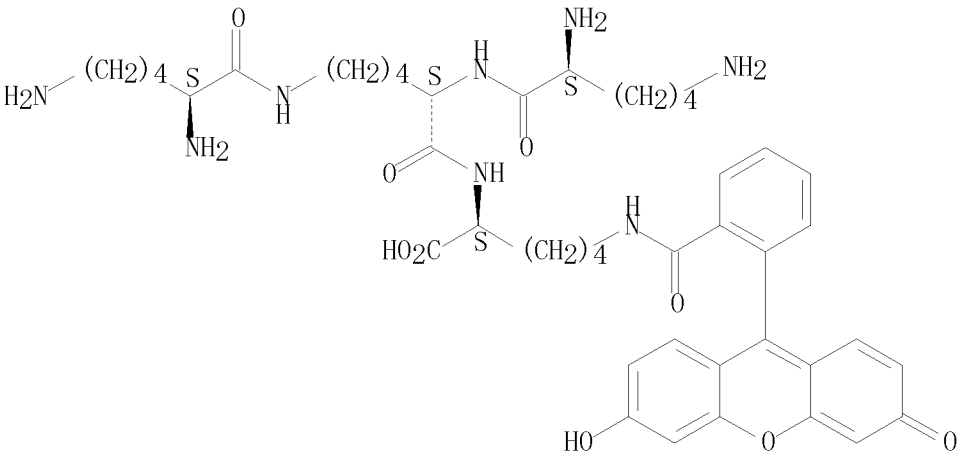
L7 ANSWER 12 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:1100349 CAPLUS
DN 147:527845
TI Simple branched arginine-based structures can enhance the cellular uptake of peptide cargos
AU Chua, Brendon Y.; Zeng, Weiguang; Jackson, David C.
CS Department of Microbiology Immunology, The University of Melbourne, Parkville, Victoria, 3010, Australia
SO International Journal of Peptide Research and Therapeutics (2007), 13(3), 431-437
CODEN: IJPRFC; ISSN: 1573-3149
PB Springer
DT Journal
LA English
AB In an attempt to design delivery vehicles to enable epitope-based vaccine uptake, we investigated the properties of a variety of synthetic, branched cationic structures. We found that branched compds. based on arginine or lysine were able to facilitate internalization of peptide cargo into cells to different degrees. Branched constructs containing only two arginine residues (R2) were not only able to bind to cells more efficiently than constructs with two lysine residues (K2) but were also internalized within vesicle like compartments in the cell. The extent of binding and uptake was enhanced when addnl. arginine residues were incorporated to form a tetra arginine construct (R4). An investigation into the kinetics and dose dependence of cellular uptake of these arginine-based constructs

demonstrated that binding and internalization is a rapid and efficient event. We also found uptake of the peptide epitope TYQRTRALV was enhanced when it was coupled to R4. This approach may prove useful for introducing peptide epitopes into antigen presenting cells as self-adjuvanting structures and also for delivery of other peptides into different specialized cells.

IT 955960-68-6 955960-69-7 955960-71-1
955960-73-3
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(simple branched arginine-based structures can enhance the cellular uptake of peptide cargos)

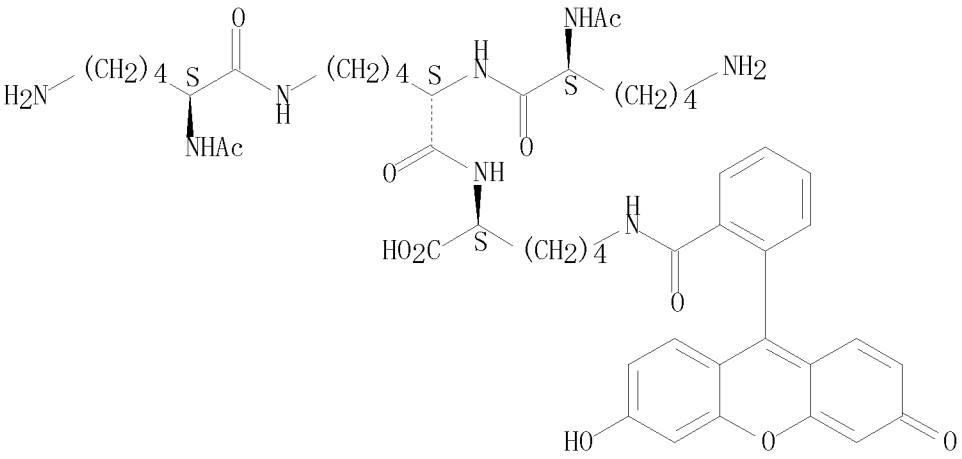
RN 955960-68-6 CAPLUS
CN L-Lysine, N2,N6-di-L-lysyl-L-lysyl-N6-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 955960-69-7 CAPLUS
CN L-Lysine, N2,N6-bis(N2-acetyl-L-lysyl)-L-lysyl-N6-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]- (CA INDEX NAME)

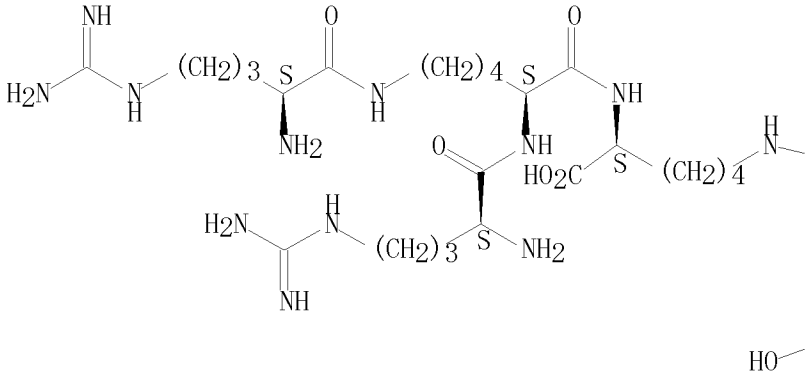
Absolute stereochemistry.



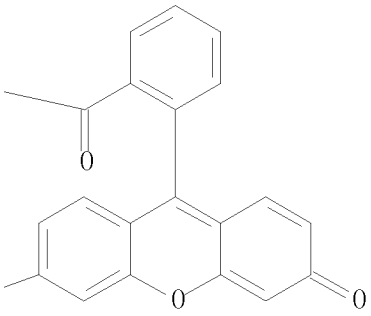
RN 955960-71-1 CAPLUS
CN L-Lysine, N2,N6-di-L-arginyl-L-lysyl-N6-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



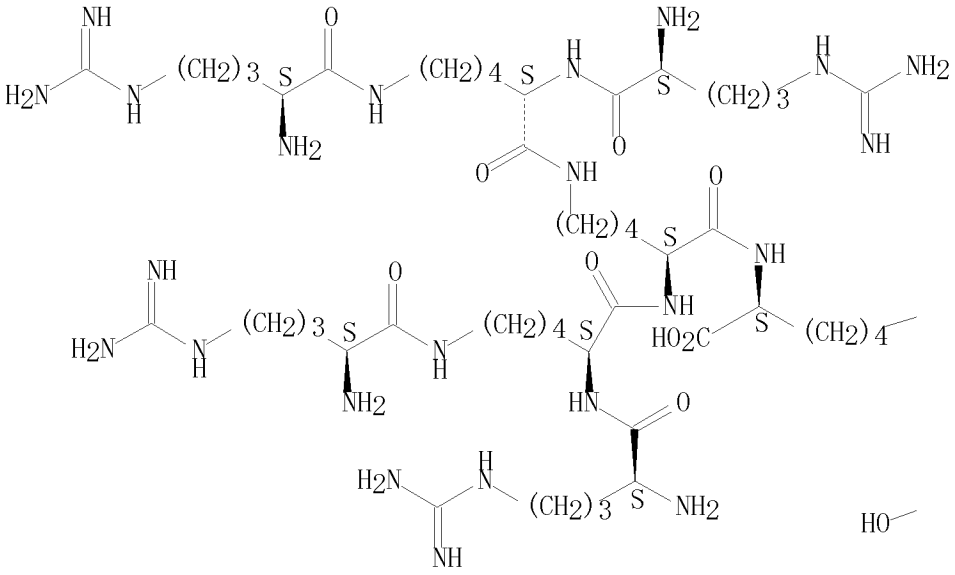
PAGE 1-B



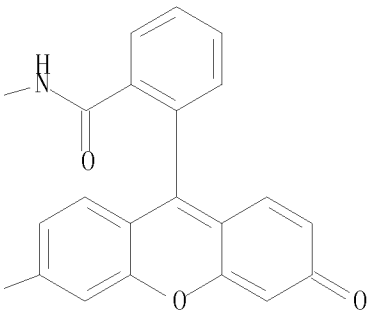
RN 955960-73-3 CAPLUS
CN L-Lysine, N2,N6-bis(N2,N6-di-L-arginyl-L-lysyl)-L-lysyl-N6-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

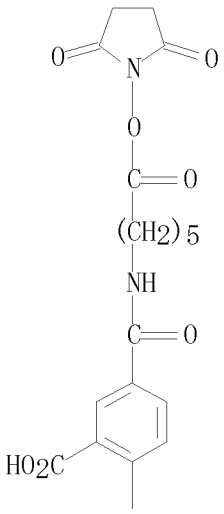


RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

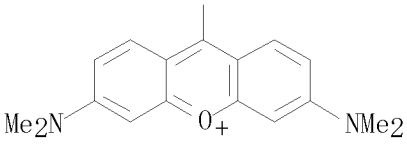
L7 ANSWER 13 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:404576 CAPLUS
DN 147:26152
TI Turnip Yellow Mosaic Virus as a Chemoaddressable Bionanoparticle
AU Barnhill, Hannah N.; Reuther, Rachel; Ferguson, P. Lee; Dreher, Theo; Wang, Qian
CS Department of Chemistry and Biochemistry and Nanocenter, University of South Carolina, Columbia, SC, 29208, USA
SO Bioconjugate Chemistry (2007), 18(3), 852-859

CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB Viruses and virus-like particles (VLPs) have been demonstrated to be robust scaffolds for the construction of nanomaterials. To develop new nanoprobes for time-resolved fluoroimmunoassays as well as to investigate the two-dimensional self-assembly of viruses and VLPs, the icosahedral turnip yellow mosaic virus (TYMV) was investigated as a potential building block in the authors' study. TYMV is an icosahedral plant virus with an average diameter of 28 nm that can be isolated inexpensively in gram quantities from turnips or Chinese cabbage. There are 180 coat protein subunits per TYMV capsid. The conventional N-hydroxysuccinimide-mediated amidation reaction was employed for the chemical modification of the viral capsid. Tryptic digestion with sequential MALDI-TOF MS anal. identified that the amino groups of K32 of the flexible N-terminus made the major contribution for the reactivity of TYMV toward N-hydroxysuccinimide ester (NHS) reagents. The reactivity was also monitored with UV-vis absorbance and fluorescence, which revealed that approx. 60 lysines per particle could be addressed. The authors hypothesized that the flexible A chain contains the reactive lysine because the crystal structure of TYMV has shown that chain A is much more flexible compared to B and C, especially at the N-terminal region where the Lys-32 located. In addition, about 90 to 120 carboxyl groups, located in the most exposed sequence, could be modified with amines catalyzed with 1-(3-dimethylaminopropyl-3-ethylcarbodiimide) hydrochloride (EDC) and sulfo-NHS. TYMV was stable to a wide range of reaction conditions and maintained its integrity after the chemical conjugations. Therefore, it can potentially be employed as a reactive scaffold for the display of a variety of materials for applications in many areas of nanoscience.
IT 939436-23-4
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(turnip yellow mosaic virus as chemoaddressable bionanoparticle by coupling via lysine residues and carboxyl groups)
RN 939436-23-4 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 14 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:198977 CAPLUS
DN 146:229558
TI Preparation and quenching effect of fluorescent labeled dye-containing modified nucleosides and nucleotides and uses thereof
IN Liu, Xiaohai; Milton, John
PA Solexa Limited, UK
SO PCT Int. Appl., 51pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007020457	A2	20070222	WO 2006-GB3095	20060818
	WO 2007020457	A3	20071025		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,

RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 20070042407 A1 20070222 US 2006-494279 20060727
EP 1926829 A2 20080604 EP 2006-779167 20060818
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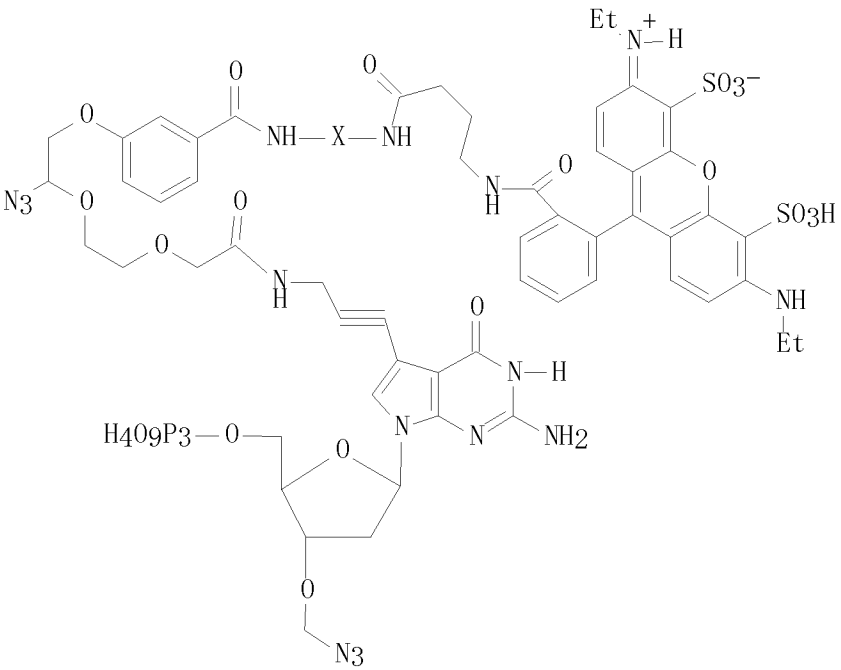
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

PRAI GB 2005-17097 A 20050819
WO 2006-GB3095 W 20060818

OS CASREACT 146:229558

GI



I

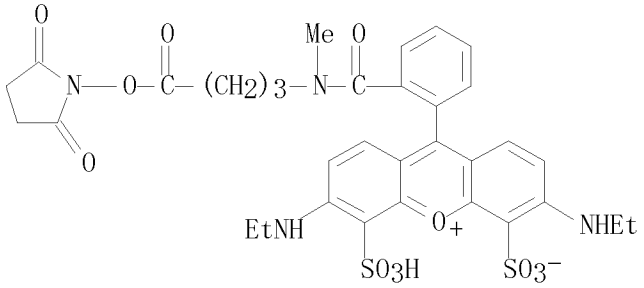
AB Modified guanine-containing nucleosides and nucleotides, in particular fluorescent labeled guanine-containing nucleosides and nucleotides, which exhibit reduced quenching effects, and hence enhanced brightness of the fluorophore are described. Thus, nucleotide I [X = -CH2CH2NHCOCH2CH2(OCH2CH2)11OCH2CH2-] was prepared and tested for incorporation into a polynucleotide by phosphodiester linkage of each resp. nucleotide to the 3' end of a DNA strand, the precise sequence of which is not of relevance. The fluorescent intensity of the dye in each of the modified nucleotides was then measured, both before and after treatment with tris(2-carboxyethyl)phosphine.

IT 924660-19-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and quenching effect of fluorescent labeled dye-containing modified nucleosides and nucleotides and uses thereof)

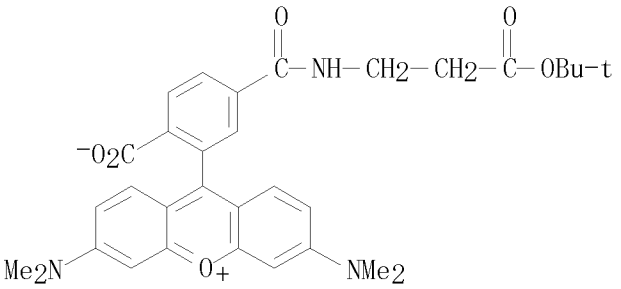
RN 924660-19-5 CAPLUS

CN Xanthylium, 9-[2-[[[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-

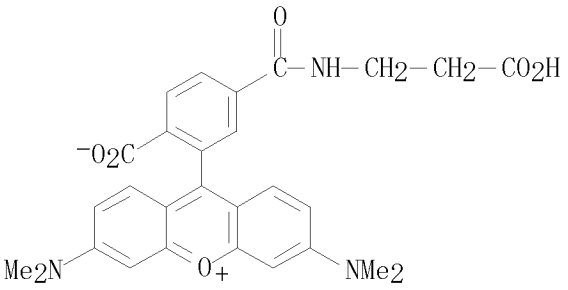
oxobutyl]methylamino]carbonyl]phenyl]-3,6-bis(ethylamino)-4,5-disulfo-, inner salt (CA INDEX NAME)



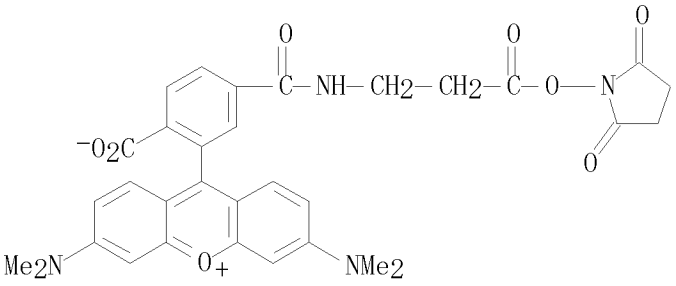
L7 ANSWER 15 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:131133 CAPLUS
DN 146:397565
TI Synthesis of reference standards to enable single cell metabolomic studies of tetramethylrhodamine-labeled ganglioside GM1
AU Larsson, E. Andreas; Olsson, Ulf; Whitmore, Colin D.; Martins, Rita; Tettamanti, Guido; Schnaar, Ronald L.; Dovichi, Norman J.; Palcic, Monica M.; Hindsgaul, Ole
CS Carlsberg Laboratory, Valby-Copenhagen, DK-2500, Den.
SO Carbohydrate Research (2007), 342(3-4), 482-489
CODEN: CRBRAT; ISSN: 0008-6215
PB Elsevier B.V.
DT Journal
LA English
OS CASREACT 146:397565
AB Ganglioside GM1 and its seven potential catabolic products: asialo-GM1, GM2, asialo-GM2, GM3, Lac-Cer, Glc-Cer and Cer, were labeled with tetramethylrhodamine (TMR) to permit ultra-sensitive anal. using laser-induced fluorescence (LIF) detection. The preparation involved acylation of the homogeneous C18 lyso-forms of GM1, Lac-Cer, Glc-Cer and Cer with the N-hydroxysuccinimide ester of a β-alanine-tethered 6-TMR derivative, followed by conversion of these labeled products using galactosidase, sialidase, and sialyltransferase enzymes. The TMR-glycolipid analogs produced are detectable on TLC down to the 1 ng level by the naked eye. All eight compds. could be separated within 4 min in capillary electrophoresis where they could be detected at the zeptomole (.apprx.1000 mol.) level using LIF.
IT 933058-14-1P 933058-15-2P 933058-16-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of reference stds. to enable single cell metabolomic studies of tetramethylrhodamine-labeled ganglioside GM1)
RN 933058-14-1 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[[3-(1,1-dimethylethoxy)-3-oxopropyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



RN 933058-15-2 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[(2-carboxyethyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



RN 933058-16-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[[3-[(2,5-dioxo-1-pyrrolidinyl)oxy]-3-oxopropyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



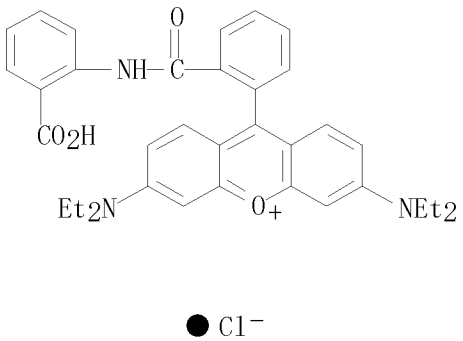
OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:117852 CAPLUS
DN 146:212209
TI Hair dye composition for dyeing of keratin fibers comprising an amidoxanthene direct dye
IN Lagrange, Alain
PA L'Oreal, Fr.
SO Fr. Demande, 74pp.
CODEN: FRXXBL

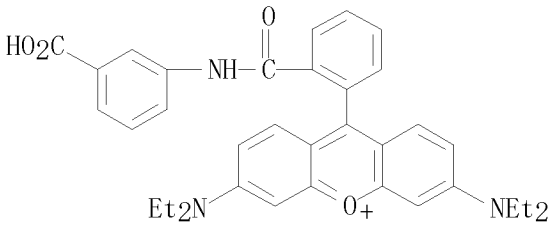
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2889060	A1	20070202	FR 2005-52408	20050801
	FR 2889060	B1	20090515		
PRAI	FR 2005-52408		20050801		

OS MARPAT 146:212209
AB A hair dye composition for dyeing of keratinous fibers, in particular of human keratinous fibers and, more particularly hair, contains an amidoxanthene direct dye. A hair dye composition contained [6-[bis-(2-hydroxy-ethyl)-amino]-9-(2--dipropylcarbamoyl-phenyl)-xanthen-3-ylidene]-bis-(2-hydroxy-ethyl)- ammonium 0.125, alkyl polyglucoside 3, PEG-8 6, benzyl alc. 4, hydroxyethyl cellulose 0.72, buffer pH = 9 50, and water q.s. 100 g. The composition gives a strong red color to the hair.
IT 173423-07-9 173423-08-0 173423-09-1
173423-11-5 173423-12-6 173423-13-7
173423-14-8 173423-15-9 173423-16-0
173423-17-1 173423-18-2 173423-19-3
173423-20-6 173423-21-7 173423-22-8
173423-23-9 173423-24-0 173423-25-1
173423-26-2 173423-27-3 173423-28-4
173423-29-5 173423-30-8 173423-31-9
173423-32-0 173423-33-1 173423-34-2
173423-35-3 173423-36-4 173423-37-5
174423-22-4 358732-24-8 358732-25-9
358732-26-0 358732-27-1 358732-28-2
358732-29-3 358732-30-6
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dye composition for dyeing keratin fibers comprising amidoxanthene direct dye)
RN 173423-07-9 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

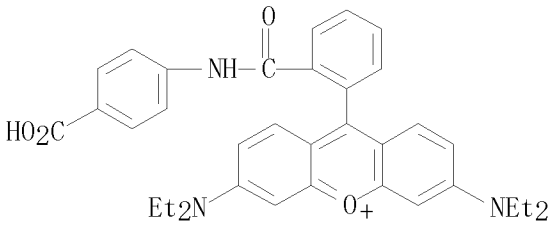


RN 173423-08-0 CAPLUS
CN Xanthylium, 9-[2-[[(3-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



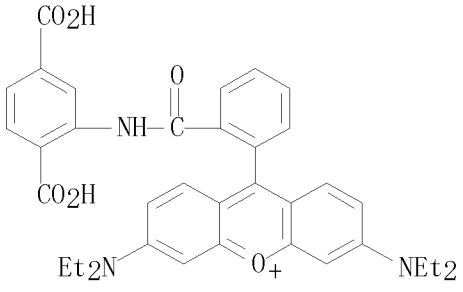
● Cl⁻

RN 173423-09-1 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



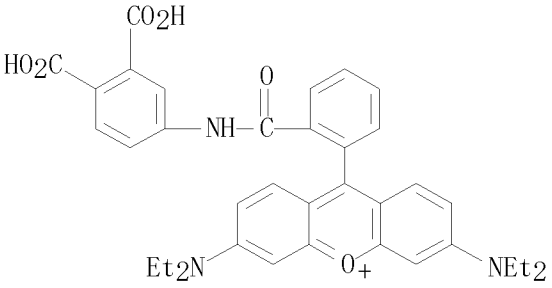
● Cl⁻

RN 173423-11-5 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



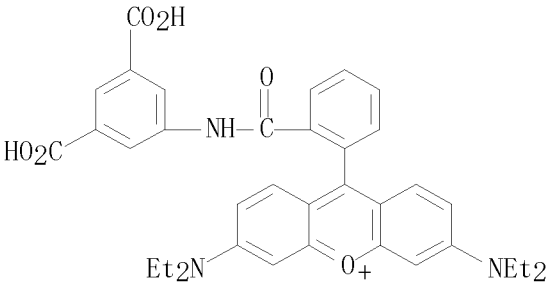
● Cl⁻

RN 173423-12-6 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



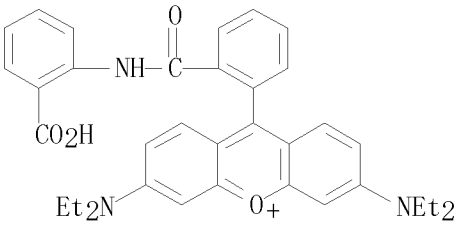
● Cl^-

RN 173423-13-7 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



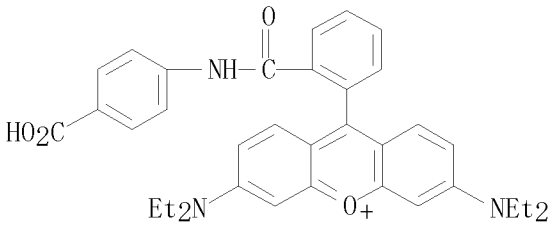
● Cl^-

RN 173423-14-8 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



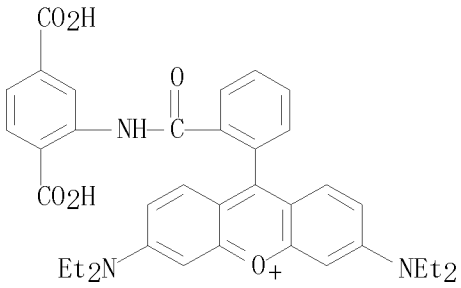
● Br^-

RN 173423-15-9 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



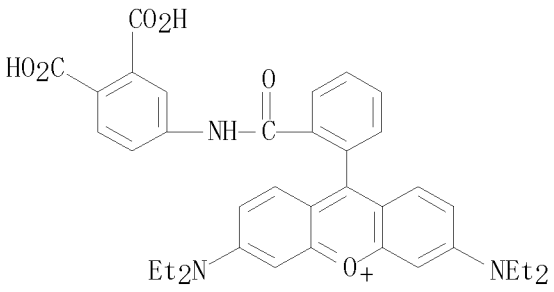
● Br^-

RN 173423-16-0 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



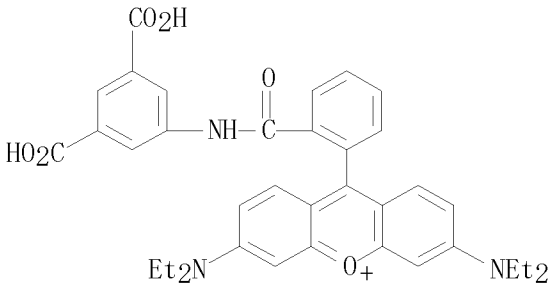
● Br^-

RN 173423-17-1 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



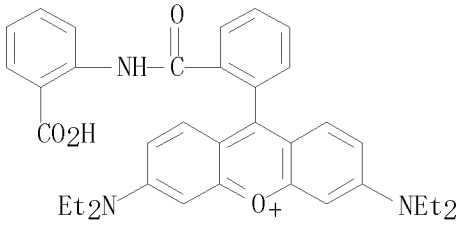
● Br^-

RN 173423-18-2 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



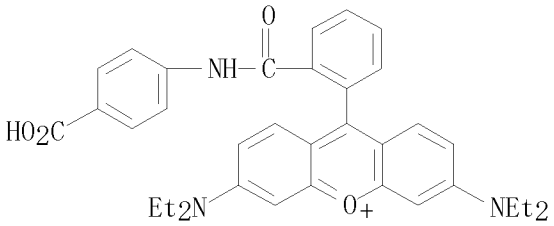
● Br^-

RN 173423-19-3 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



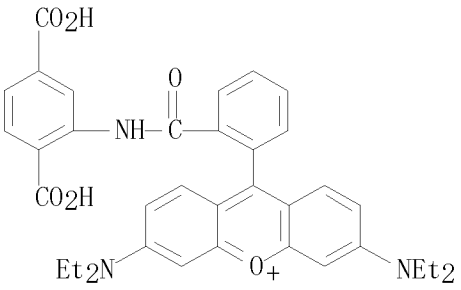
● I^-

RN 173423-20-6 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



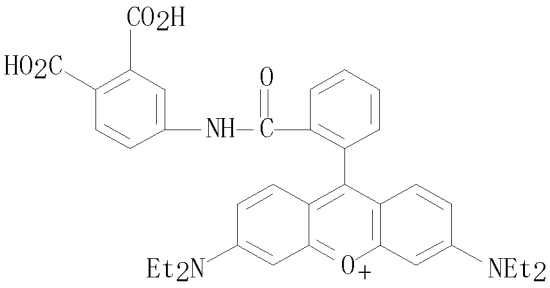
● I^-

RN 173423-21-7 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



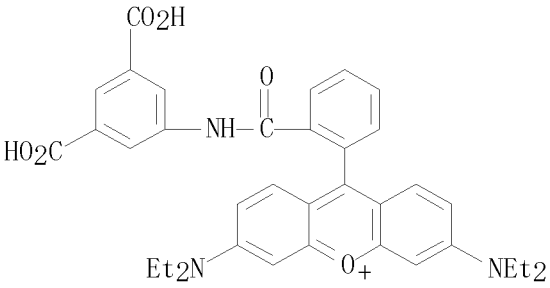
● I^-

RN 173423-22-8 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



● I^-

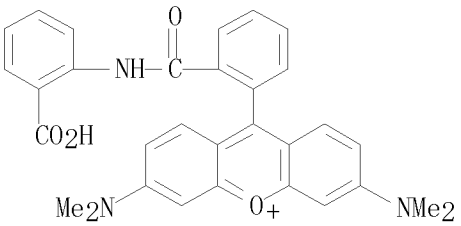
RN 173423-23-9 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



● I^-

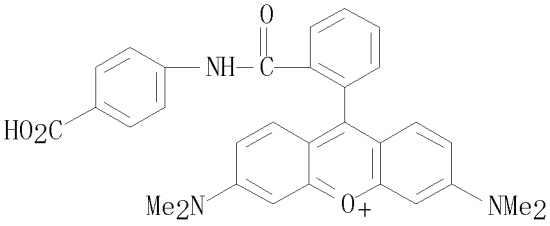
RN 173423-24-0 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-

bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



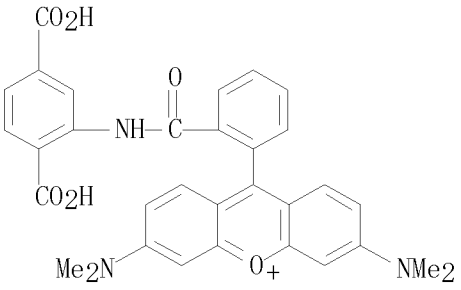
● Cl⁻

RN 173423-25-1 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



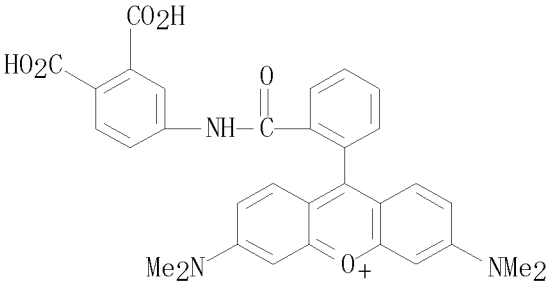
● Cl⁻

RN 173423-26-2 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



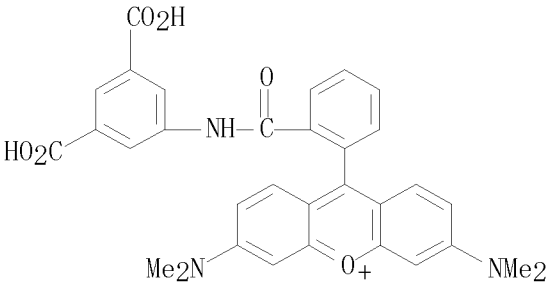
● Cl⁻

RN 173423-27-3 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



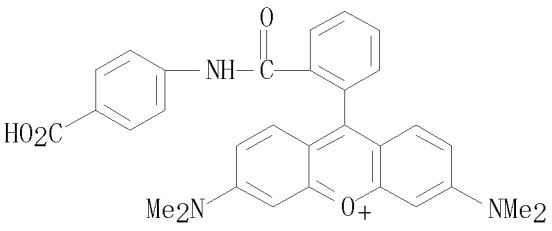
● Cl^-

RN 173423-28-4 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



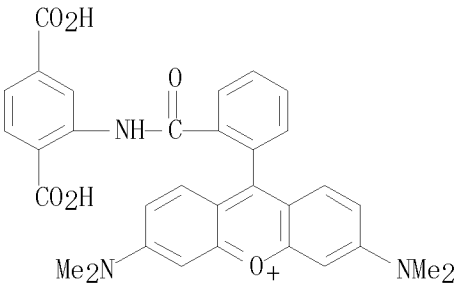
● Cl^-

RN 173423-29-5 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



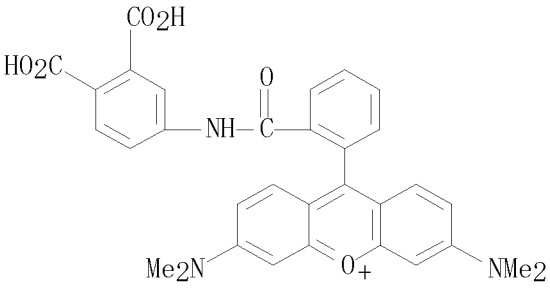
● Br^-

RN 173423-30-8 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



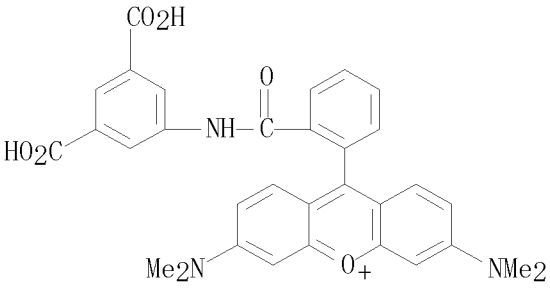
● Br^-

RN 173423-31-9 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



● Br^-

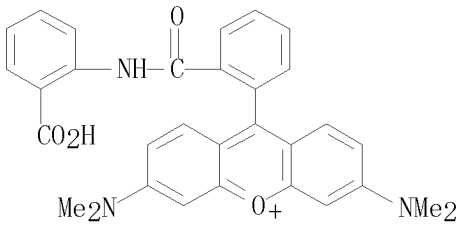
RN 173423-32-0 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



● Br^-

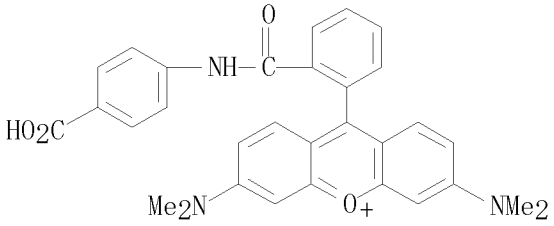
RN 173423-33-1 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-

bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



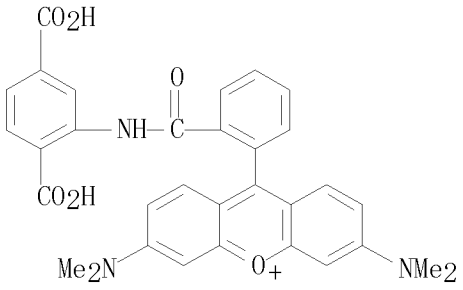
● I^-

RN 173423-34-2 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



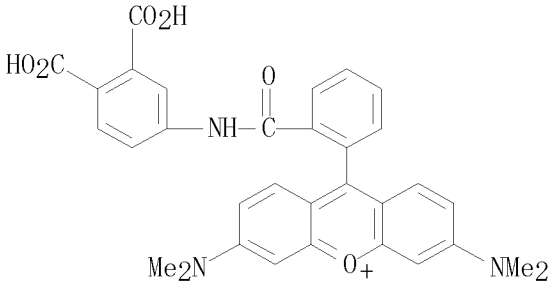
● I^-

RN 173423-35-3 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



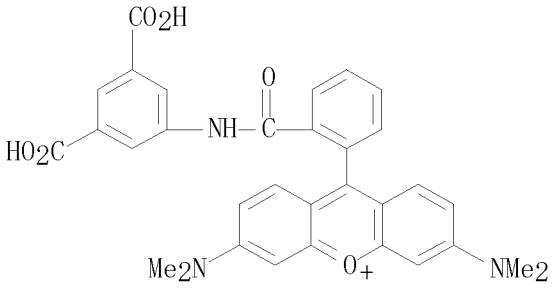
● I^-

RN 173423-36-4 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



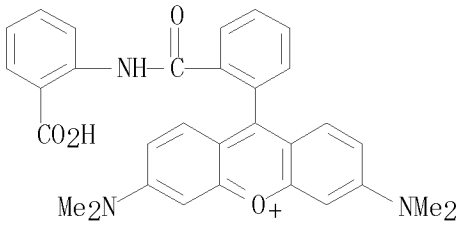
● I^-

RN 173423-37-5 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



● I^-

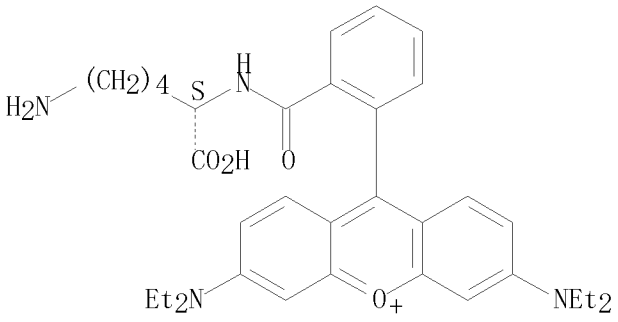
RN 174423-22-4 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



● Br^-

RN 358732-24-8 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-5-amino-1-carboxypentyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

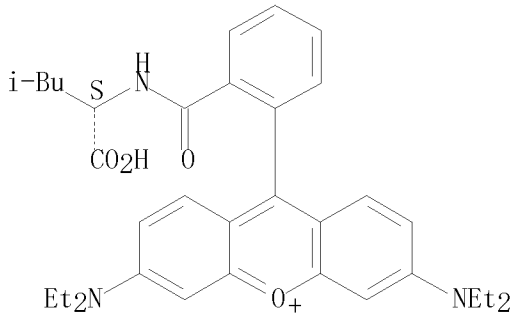
Absolute stereochemistry.



● Cl⁻

RN 358732-25-9 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-3-methylbutyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

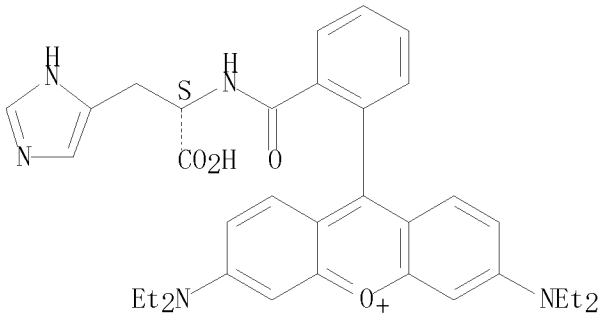
Absolute stereochemistry.



● Cl⁻

RN 358732-26-0 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-2-(1H-imidazol-5-yl)ethyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

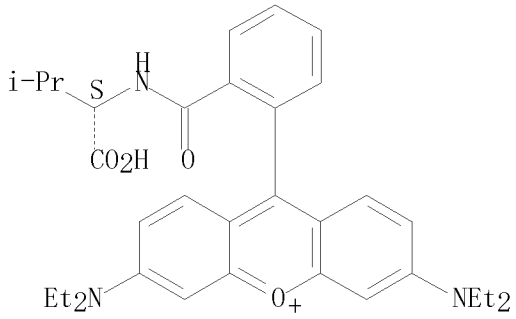
Absolute stereochemistry.



● Cl^-

RN 358732-27-1 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-2-methylpropyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

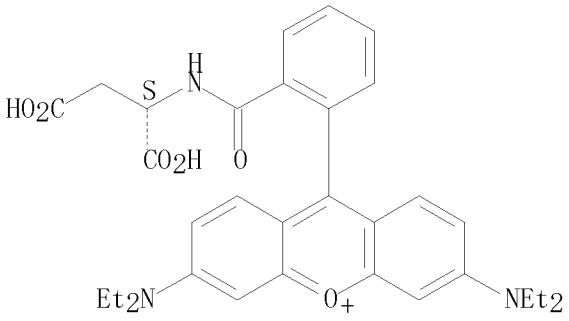
Absolute stereochemistry.



● Cl^-

RN 358732-28-2 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1,2-dicarboxyethyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

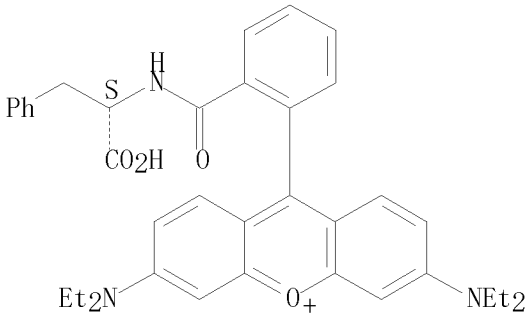
Absolute stereochemistry.



● Cl⁻

RN 358732-29-3 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-2-phenylethyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

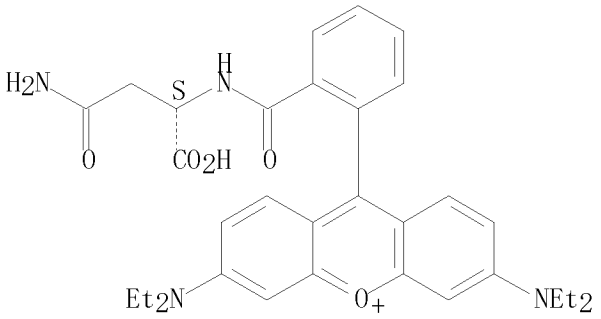
Absolute stereochemistry.



● Cl⁻

RN 358732-30-6 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-3-amino-1-carboxy-3-oxopropyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 17 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:1338591 CAPLUS
DN 146:100130
TI Synthesis of combinatorial libraries containing encoding oligonucleotide tags
IN Morgan, Barry; Hale, Stephen; Arico-Muendel, Christopher C.; Clark, Matthew; Wagner, Richard; Kavarana, Malcolm J.; Creaser, Steffen Phillip; Franklin, George J.; Centrella, Paolo A.; Israel, David I.; Gefter, Malcolm L.; Benjamin, Dennis; Hansen, Nils Jakob Vest; Acharya, Raksha A.
PA Praecis Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 286 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006135786	A2	20061221	WO 2006-US22555	20060609
	WO 2006135786	A3	20070621		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
	AU 2006257915	A1	20061221	AU 2006-257915	20060609
	CA 2611512	A1	20061221	CA 2006-2611512	20060609
	EP 1910538	A2	20080416	EP 2006-784718	20060609
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
	JP 2008543289	T	20081204	JP 2008-515983	20060609
	MX 2007015543	A	20080605	MX 2007-15543	20071207
	DK 2008000005	A	20080304	DK 2008-5	20080103

	KR 2008036577	A	20080428	KR 2008-700511	20080108
	IN 2008DN00212	A	20080711	IN 2008-DN212	20080108
	CN 101233235	A	20080730	CN 2006-80027615	20080128
PRAI	US 2005-689466P	P	20050609		
	US 2005-731041P	P	20051028		
	WO 2006-US22555	W	20060609		

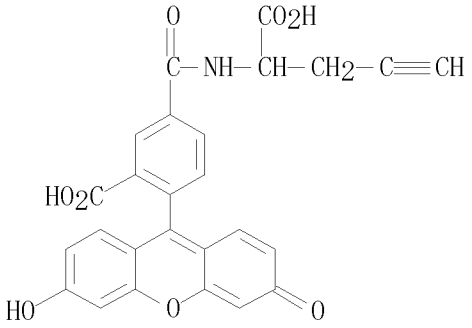
OS MARPAT 146:100130

AB The present invention provides methods which enable facile synthesis of oligonucleotide-encoded combinatorial libraries, and permit an efficient, high-fidelity means of adding such an oligonucleotide tag to each member of a vast collection of mols. The method utilizes a "split and pool" strategy in which an initiator, comprising a first building block linked to an encoding oligonucleotide, is divided ("split") into multiple fractions. In each fraction, the initiator is reacted with a second, unique building block and a second, unique oligonucleotide which identifies the second building block. These reactions can be simultaneous or sequential and, if sequential, either reaction can precede the other. The dimeric mols. produced in each of the fractions are combined ("pooled") and then divided again into multiple fractions. Each of these fractions is then reacted with a third unique (fraction-specific) building block and a third unique oligonucleotide which encodes the building block. The building blocks can be coupled to produce linear or branched polymers or oligomers, such as peptides, peptidomimetics, and peptoids, or non-oligomeric mols., such as mols. comprising a scaffold structure to which is attached one or more addnl. chemical moieties. The number of unique mols. present in the product library is a function of (1) the number of different building blocks used at each step of the synthesis, and (2) the number of times the pooling and dividing process is repeated. The ability to amplify encoding oligonucleotide sequences using known methods such as PCR means that selected mols. can be identified even if relatively few copies are recovered. This allows the practical use of very large libraries, which, as a consequence of their high degree of complexity, either comprise relatively few copies of any given library member, or require the use of very large vols.

IT 1068160-30-4
RL: PRPH (Prophetic)
(Synthesis of combinatorial libraries containing encoding oligonucleotide tags)

RN 1068160-30-4 CAPLUS

CN Benzoic acid, 5-[[(1-carboxy-3-butyn-1-yl)amino]carbonyl]-2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)- (CA INDEX NAME)



L7 ANSWER 18 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:1033647 CAPLUS

DN 145:397383

TI Spirocyclic heterocyclic derivatives as δ-opioid receptor ligands

and their preparation, pharmaceutical compositions, and methods of their use

IN Dolle, Roland E.; Le Bourdonnec, Bertrand; Chu, Guo-Hua

PA Adolor Corporation, USA

SO PCT Int. Appl., 734pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006105442	A2	20061005	WO 2006-US12081	20060331
	WO 2006105442	A3	20070802		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
	US 20060270695	A1	20061130	US 2006-393133	20060330
	AU 2006230517	A1	20061005	AU 2006-230517	20060331
	CA 2603126	A1	20061005	CA 2006-2603126	20060331
	EP 1871761	A2	20080102	EP 2006-749077	20060331
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
	JP 2008534613	T	20080828	JP 2008-504447	20060331
	MX 2007011962	A	20071213	MX 2007-11962	20070927
	IN 2007KN04147	A	20080606	IN 2007-KN4147	20071029
	KR 2008005245	A	20080110	KR 2007-725148	20071030
	CN 101184749	A	20080521	CN 2006-80019153	20071130
PRAI	US 2005-667177P	P	20050331		
	US 2006-393133	A	20060330		
	WO 2006-US12081	W	20060331		

OS MARPAT 145:397383

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

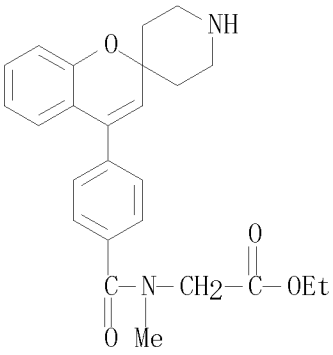
AB Spirocyclic heterocyclic derivs. of formula I, pharmaceutical compns. containing these compds., and methods for their pharmaceutical use are disclosed. In certain embodiments, the spirocyclic heterocyclic derivs. are ligands of the δ-opioid receptor and may be useful, inter alia, for treating and/or preventing pain, anxiety, gastrointestinal disorders, and other δ opioid receptor-mediated conditions. Compds. of formula I wherein W2 is (un)substituted (hetero)aryl; R23 and R24 are independently H, and alkyl, provided that at least one of the groups are alkyl; A2 and B2 are independently H, and together form a double bond; X2 is CH2 and O; p is 1 and 2; and their stereoisomers, prodrugs, pharmaceutically acceptable salts, solvates, hydrates, acid salt hydrates, and N-oxides thereof are claimed. Example compds. (-)-II and (+)-II were prepared by hydrogenation of compound III to give the

spirotetrahydrobenzopyran derivative, which underwent resolution to give the optically active isomers, which underwent hydrolysis to give (-)- and (+)-II. All the invention compds. were evaluated for their opioid receptor inhibitory activity. From the assay, it was determined that (-)-II and (+)-II exhibited Ki values of 0.59 nM and 75 nM, resp. Compound (-)-II displayed potent in vitro δ agonistic activity with an EC50 value of 16.8 nM, while (+)-II displayed weaker in vitro agonist activity, EC50 of 1282 nM.

IT 850174-29-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of spirocyclic heterocyclic derivs. as δ-opioid receptor ligands useful as therapeutic agents)

RN 850174-29-7 CAPLUS

CN Glycine, N-methyl-N-(4-spiro[2H-1-benzopyran-2,4'-piperidin]-4-ylbenzoyl)-, ethyl ester (CA INDEX NAME)



OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L7 ANSWER 19 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:961768 CAPLUS

DN 147:32708

TI Synthesis and application of N-hydroxysuccinimidyl rhodamine B ester as an amine-reactive fluorescent probe

AU Meng, Qinghua; Yu, Meijuan; Zhang, Haifeng; Ren, Jicun; Huang, Deyin

CS School of Chemistry and Chemical Engineering, Shanghai Jiao Tong University, Shanghai, 200240, Peop. Rep. China

SO Dyes and Pigments (2006), Volume Date 2007, 73(2), 254-260
CODEN: DYPIDX; ISSN: 0143-7208

PB Elsevier Ltd.

DT Journal

LA English

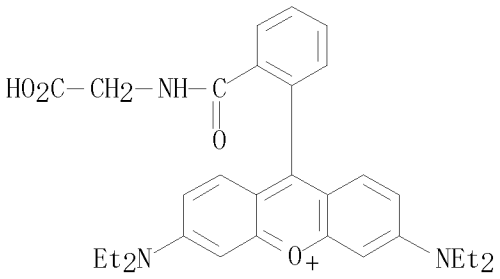
OS CASREACT 147:32708

AB A fluorescent probe (RB-S) containing the N-hydroxysuccinimidyl ester in 2 position was prepared from rhodamine B (RB) by one-step condensation reaction. The reactivity of the fluorescent probe with glycine was studied and the products were identified by LC-MS anal. The excessive equivalent of the RB-S was hydrolyzed to the corresponding carboxylic acids (RB). UV/vis and fluorescence spectra of the fluorescent probe (RB-S), the labeled derivative (RB-Gly) and the hydrolyzate (RB) were also studied. Fluorescence and absorption spectra appear as mirror images. The solvent effect on the spectra of the glycine derivative (RB-Gly) was investigated in methanol/water solution

IT 794486-63-8P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)
(application of N-hydroxysuccinimidyl rhodamine B ester as an amine-reactive fluorescent probe)

RN 794486-63-8 CAPLUS
CN Xanthylium, 9-[2-[[(carboxymethyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)- (CA INDEX NAME)



OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 20 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:378829 CAPLUS
DN 145:58074
TI A broad-spectrum fluorescence-based peptide library for the rapid identification of protease substrates
AU Thomas, Daniel A.; Francis, Peter; Smith, Carla; Ratcliffe, Steven; Ede, Nicholas J.; Kay, Corinne; Wayne, Gareth; Martin, Steve L.; Moore, Keith; Amour, Augustin; Hooper, Nigel M.
CS Proteolysis Research Group, School of Biochemistry and Microbiology, Leeds Institute of Genetics, Health and Therapeutics, University of Leeds, Leeds, UK
SO Proteomics (2006), 6(7), 2112-2120
CODEN: PROTC7; ISSN: 1615-9853
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB Identification of peptide substrates for proteases can be a major undertaking. To overcome issues such as feasibility and deconvolution, associated with large peptide libraries, a small but smart generic fluorescence resonance energy transfer rapid endopeptidase profiling library (REPLi) was synthesized as a tool for rapidly identifying protease substrates. Within a tripeptide core, flanked by Gly residues, similar amino acids were paired giving rise to a relatively small library of 3375 peptides divided into 512 distinct pools each containing only 8 peptides. The REPLi was validated with trypsin, pepsin, the matrix metalloprotease (MMP)-12 and MMP-13 and calpains-1 and -2. In the case of calpain-2, a single iteration step involving LC-MS, provided the definitive residue specificity from which a highly sensitive fluorogenic substrate, (FAM)-Gly-Gly-Gly-Gln-Leu-Tyr-Gly-Gly-DPA-Arg-Arg-Lys-(TAMRA), was then designed. The thorough validation of this small but smart peptide library with representatives from each of the four mechanistic protease classes indicates that the REPLi will be useful for the rapid identification of substrates for multiple proteases.
IT 891197-61-8
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(identification as a novel highly-sensitive FRET substrate for calpain-2; broad-spectrum fluorescence-based REPLi peptide library for

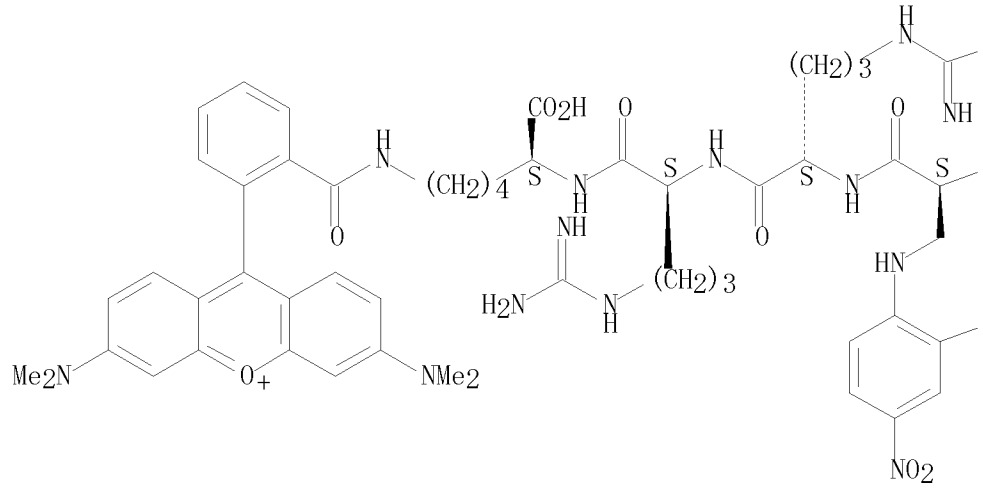
the rapid identification of proteinase substrates by FRET)

RN 891197-61-8 CAPLUS

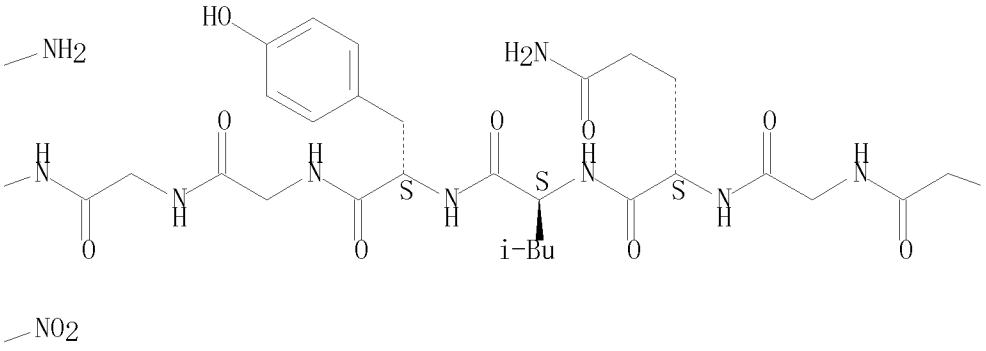
CN L-Lysine, N-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)methyl]glycylglycylglycyl-L-glutaminyl-L-leucyl-L-tyrosylglycylglycyl-3-[(2,4-dinitrophenyl)amino]-L-alanyl-L-arginyl-L-arginyl-N6-[2-[3,6-bis(dimethylamino)xanthylium-9-yl]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

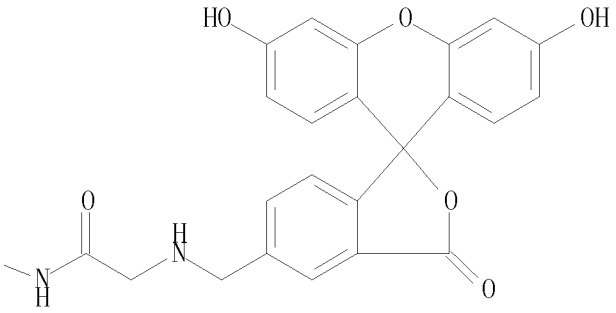
PAGE 1-A



PAGE 1-B



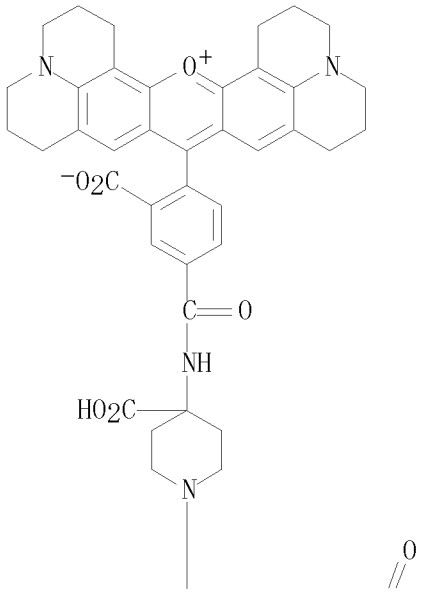
PAGE 1-C



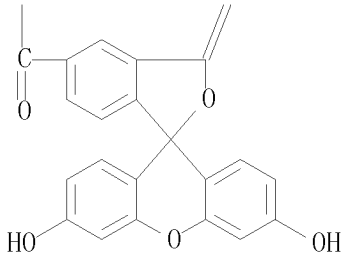
OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 21 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:1151395 CAPLUS
DN 145:293260
TI Synthesis of novel piperidinyl linker based energy transfer terminators and their potential use in DNA sequencing
AU Rao, T. Sudhakar; Nampalli, Satyam; Zhang, Weihong; Xiao, Haiguang; Kumar, Shiv
CS G.E. Healthcare, Piscataway, NJ, USA
SO Nucleosides, Nucleotides & Nucleic Acids (2005), 24(5-7), 801-804
CODEN: NNNAFY; ISSN: 1525-7770
PB Taylor & Francis, Inc.
DT Journal
LA English
OS CASREACT 145:293260
AB Synthesis of novel piperidinyl linker based ET cassettes and terminators is described. These novel terminators are evaluated in the DNA sequencing expts. using thermostable DNA polymerase.
IT 908259-36-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of novel piperidinyl linker based energy transfer terminators and their potential use in DNA sequencing)
RN 908259-36-9 CAPLUS
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-carboxy-4-[[[4-carboxy-1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-4-piperidinyl]amino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



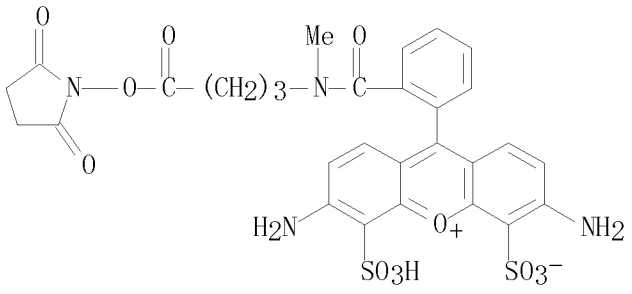
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 22 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:1004902 CAPLUS
DN 143:262496
TI Specific substrates for O6- alkylguanine-DNA alkyltransferase
IN Jaccard, Hughes; Johnsson, Kai; Kindermann, Maik; Sielaff, India Christina
PA EPFL Ecole Polytechnique Federale De Lausanne, Switz.
SO PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005085470	A1	20050915	WO 2005-EP50900	20050301
	WO 2005085470	A9	20061005		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

EP 1571224 A1 20050907 EP 2004-405124 20040302
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
EP 1730298 A1 20061213 EP 2005-716866 20050301
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
JP 2007526282 T 20070913 JP 2007-501285 20050301
US 20070243568 A1 20071018 US 2006-591162 20061003
PRAI EP 2004-405124 A 20040302
WO 2005-EP50900 W 20050301
OS MARPAT 143:262496
AB The invention relates to substrates for O6-alkylguanine-DNA alkyltransferases (AGT) of formula R1-A-X-CH2-R3-R4-L1 (A = a group recognized by AGT as a substrate; X = O, S; R1 = -R2-L2, R5; R2, R4 = linker; R3 = aromatic or heteroarom. group, (substituted) unsatd. alkyl, cycloalkyl or heterocyclyl group with the double bond connected to CH2; R5 = arylmethyl, heteroarylmethyl, (substituted) cycloalkyl, cycloalkenyl or heterocyclyl group; L1 = label, plurality of same or different labels, bond connecting R4 to A forming a cyclic substrate, further group -R3-CH2-X-A-R1; L2 = label, plurality of same or different labels). The invention further relates to methods of transferring a label from these substrates to AGT and AGT fusion proteins.
IT 863772-22-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(specific substrates for O6- alkylguanine-DNA alkyltransferase)
RN 863772-22-9 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-[[[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]methylamino]carbonyl]phenyl]-4,5-disulfo-, inner salt (CA INDEX NAME)



OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 23 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:951049 CAPLUS
DN 143:262494
TI Doubly-labeled fluorogenic hydrophobic peptide substrates for the detection of protease activity in biological sample

IN Komoriya, Akira; Packard, Beverly S.
PA Onco Immunin, Inc., USA
SO U.S., 178 pp., Cont.-in-part of Appl. No. PCT/US98/03000.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6936687	B1	20050830	US 1999-394019	19990910
	US 6037137	A	20000314	US 1997-802981	19970220
	WO 9837226	A1	19980827	WO 1998-US3000	19980220
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2384021	A1	20010315	CA 2000-2384021	20000911
	WO 2001018238	A1	20010315	WO 2000-US24882	20000911
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1214445	A1	20020619	EP 2000-961782	20000911
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	JP 2003508080	T	20030304	JP 2001-521773	20000911
	US 20030207264	A1	20031106	US 2000-747287	20001222
	US 6893868	B2	20050517		
	US 20040096926	A1	20040520	US 2001-874350	20010604
	US 7312302	B2	20071225		
	US 20050158766	A1	20050721	US 2004-15864	20041215
	US 7541143	B2	20090602		
	AU 2006200291	A1	20060223	AU 2006-200291	20060123
	US 20080199898	A1	20080821	US 2007-941766	20071116
	JP 2008167757	A	20080724	JP 2008-21366	20080131
PRAI	US 1997-802981	A2	19970220		
	WO 1998-US3000	A2	19980220		
	JP 1998-536778	A3	19980220		
	US 1999-394019	A	19990910		
	AU 2000-73688	A3	20000911		
	WO 2000-US24882	W	20000911		
	US 2000-747287	A3	20001222		
	US 2001-874350	A3	20010604		

OS MARPAT 143:262494

AB The present invention provides for novel reagents whose fluorescence increases in the presence of particular proteases. The reagents comprise a characteristically folded peptide backbone each end of which is conjugated to a fluorophore. When the folded peptide is cleaved, as by digestion with a protease, the fluorophores provide a high intensity fluorescent signal at a visible wavelength. It was found that the peptide backbones doubly labeled with one fluorophore still achieve fluorescence quenching thus suggesting quenching through another mechanism besides

resonance energy transfer. An addnl. discovery of this invention is that attachment of a hydrophobic protecting group to a polypeptide enhances uptake of that polypeptide by a cell. Because of their high fluorescence signal in the visible wavelengths, these protease indicators are particularly well suited for detection of protease activity in biol. samples, in particular in frozen tissue sections. Thus this invention also provides for methods of detecting protease activity in situ in frozen sections. In one example, the protease indicator having the formula F1-Asp-Ala-Ile-Pro-Nle-Ser-Ile-Pro-Cys-F2, where F1 is a donor fluorophore (5'-carboxytetramethylrhodamine) linked to aspartic acid via the α-amino group and F2 is an acceptor fluorophore (rhodamine X acetamide (R492)) linked via the sulfhydryl group of the cysteine, exhibits changes in emission spectrum after addn of elastase.

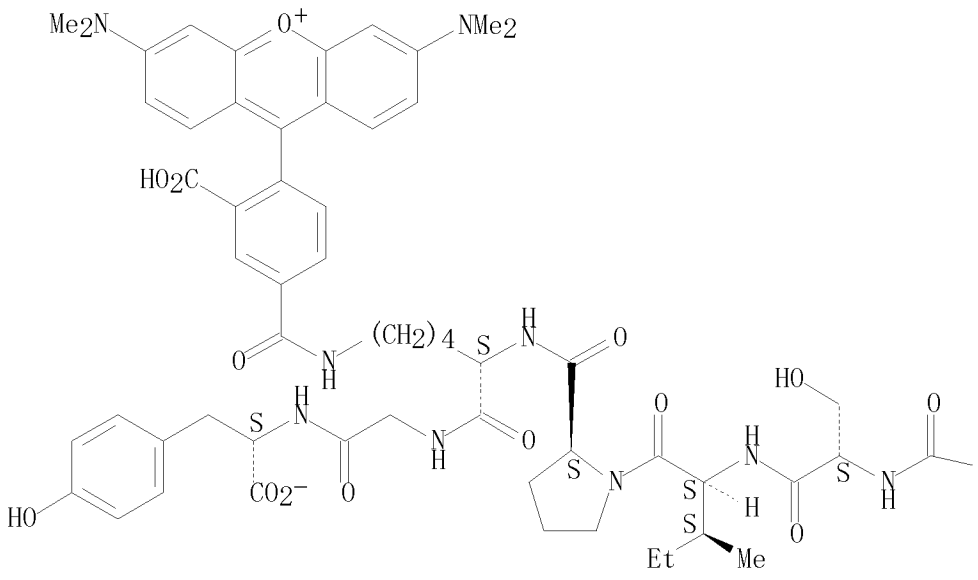
IT 205176-31-4 212207-37-9 212268-88-7D, conjugates with rhodamine X 691868-33-4
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(doubly-labeled fluorogenic peptide substrates for detection of protease activity in biol. sample)

RN 205176-31-4 CAPLUS

CN L-Tyrosine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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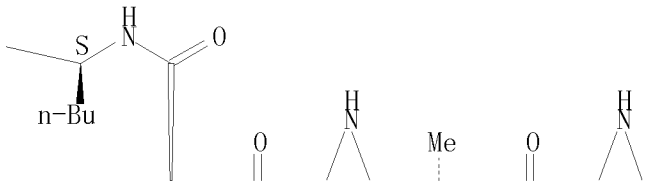

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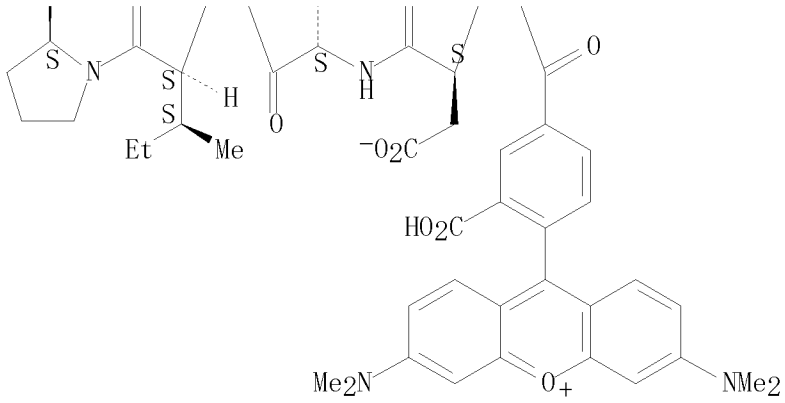
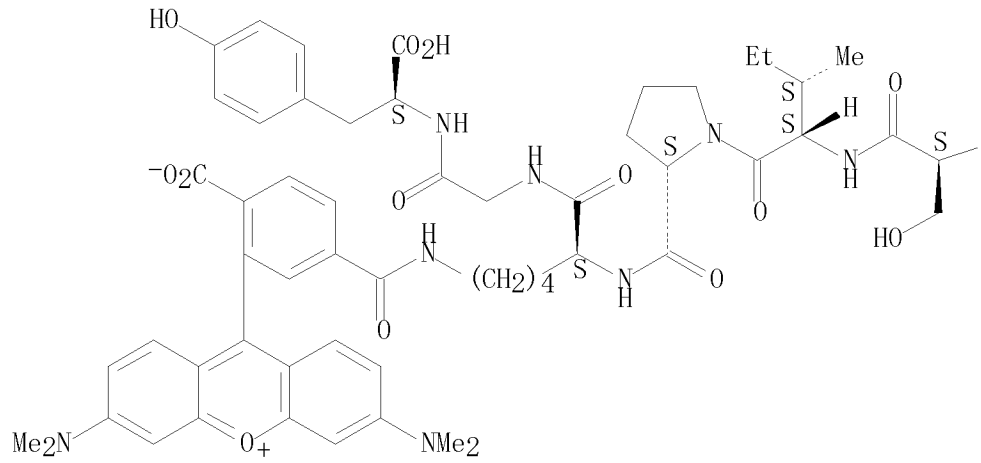


RN 212207-37-9 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-asparty1-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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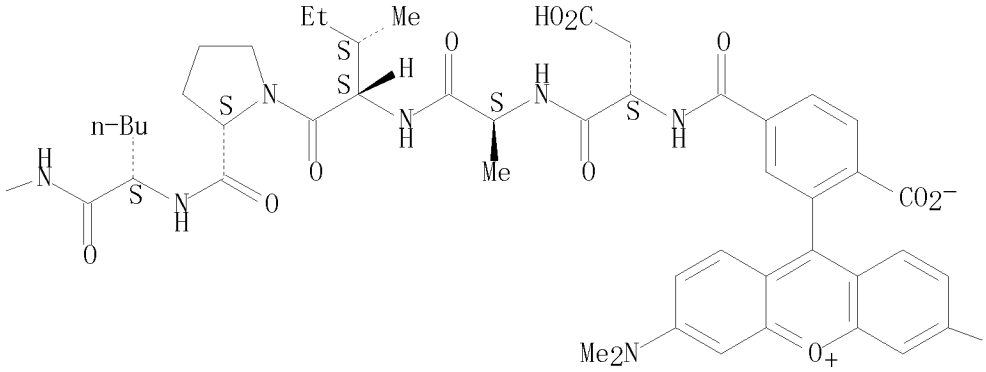


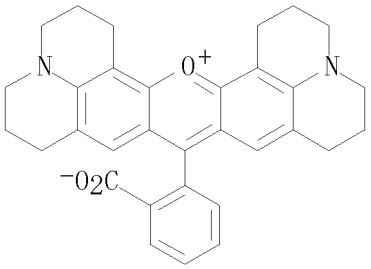
PAGE 1-C

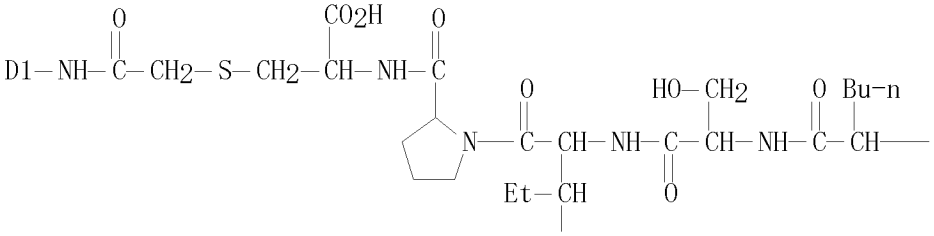
NMe2

RN 212268-88-7 CAPLUS

CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





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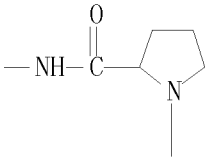

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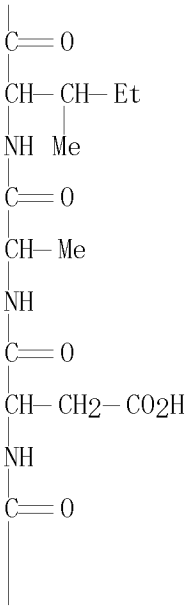
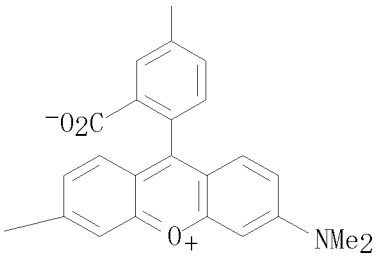
PAGE 2-B



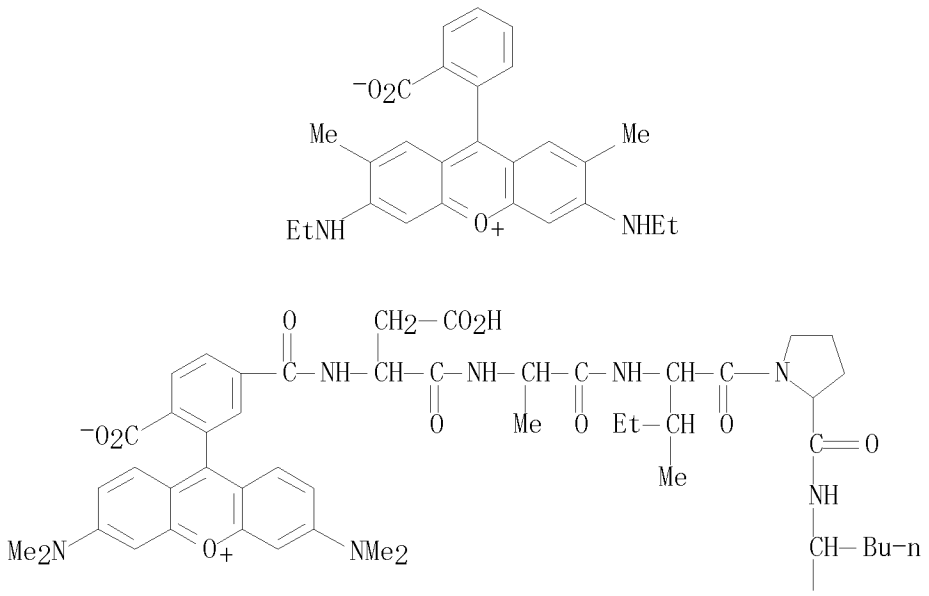
PAGE 3-A

PAGE 3-B

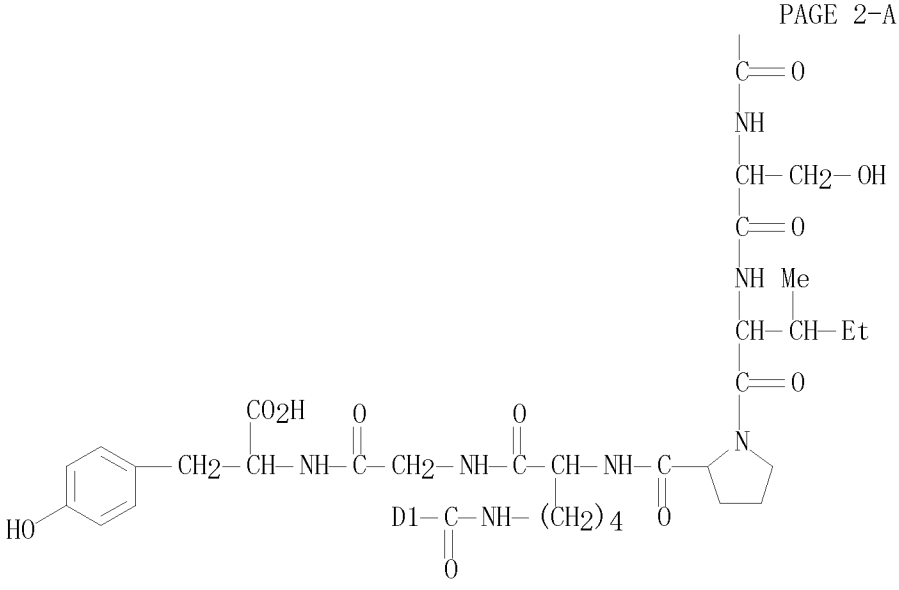


RN 691868-33-4 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-4(or 3)-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A



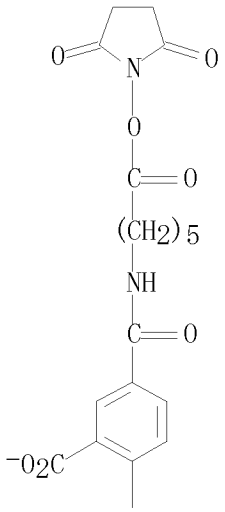
PAGE 2-A



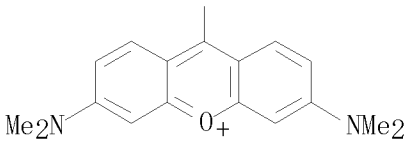
OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)
RE.CNT 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 24 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:329978 CAPLUS
DN 143:26787
TI 1D arrangement of Au nanoparticles by the helical structure of schizophyllan: A unique encounter of a natural product with inorganic compounds
AU Bae, Ah-Hyun; Numata, Munenori; Hasegawa, Teruaki; Li, Chun; Kaneko, Kenji; Sakurai, Kazuo; Shinkai, Seiji
CS Department of Chemistry and Biochemistry Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan
SO Angewandte Chemie, International Edition (2005), 44(13), 2030-2033
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 143:26787
AB Forming an orderly line: Au nanoparticles can be aligned in one dimension by their incorporation into the helical structure of a natural polysaccharide, schizophyllan. The hydrophobic inner cavity of the helix hosts the hydrophobic nanoparticles and aligns the guests along its length (≈ 200 nm).
IT 380304-22-3 457075-12-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(1D inclusion arrangement of Au nanoparticles by the helical structure of schizophyllan)
RN 380304-22-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

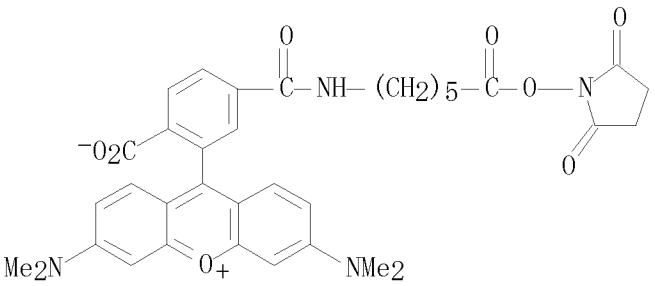
PAGE 1-A



PAGE 2-A



RN 457075-12-6 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



OSC.G 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 25 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:324133 CAPLUS
DN 142:411250
TI Preparation of 3-azaspiro[5.5]undecanes and related compounds as δ opioid receptor ligands
IN Dolle, Roland E.; Le Bourdonnec, Bertrand; Ajello, Christopher W.; Gu, Minghua; Chu, Guo-Hua; Tuthill, Paul Anson; Leister, Lara K.; Zhou, Jean Q.
PA Adolor Corporation, USA
SO PCT Int. Appl., 573 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005033073	A2	20050414	WO 2004-US32479	20041001
WO 2005033073	A3	20050728		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004278414	A1	20050414	AU 2004-278414	20041001

	CA 2541014	A1	20050414	CA 2004-2541014	20041001
	US 20050159438	A1	20050721	US 2004-957554	20041001
	US 7338962	B2	20080304		
	EP 1675847	A2	20060705	EP 2004-817130	20041001
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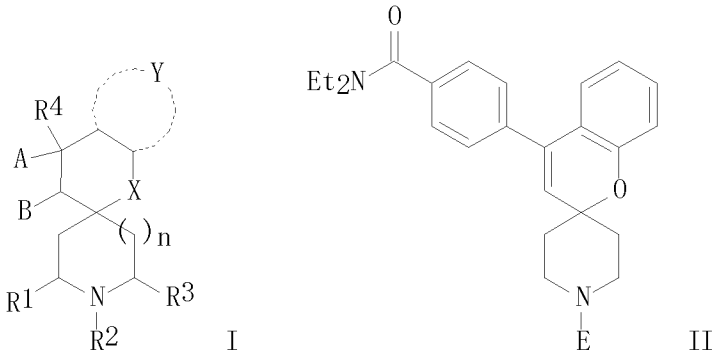
	BR 2004015165	A	20070109	BR 2004-15165	20041001
	CN 1922169	A	20070228	CN 2004-80035690	20041001
	JP 2007507532	T	20070329	JP 2006-534173	20041001
	MX 2006003639	A	20061020	MX 2006-3639	20060331
	IN 2006DN02347	A	20070803	IN 2006-DN2347	20060427
	ZA 2006003414	A	20080227	ZA 2006-3414	20060428
	KR 2007019959	A	20070216	KR 2006-708451	20060501
	US 20080102031	A1	20080501	US 2007-960845	20071220
	US 7563802	B2	20090721		
PRAI	US 2003-507864P	P	20031001		
	US 2004-957554	A1	20041001		
	WO 2004-US32479	W	20041001		

OS CASREACT 142:411250; MARPAT 142:411250

GI

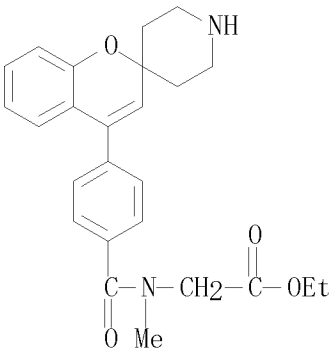


AB Title compds. I [X = CH2, O, S, etc.; Y = (CH2)n; n = 0-3; Z = 6-membered aryl, 5- or 6-membered heteroaryl ring with provisos; R1, R3 = H, alkyl, alkenyl, etc.; R2 = H, alkyl, alkenyl, etc.; R4 = Q-W; Q = single bond, C(Ra)(Rb), C(Ra)(Rb)C(Ra)(Rb), etc.; Ra = H, alkyl; Rb = H, alkyl, aryl; W = aryl, heteroaryl; A, B = H, F, alkyl, etc.] and their pharmaceutically acceptable salts were prepared For example, acid deprotection of Boc-amine II (E = Boc), e.g., prepared from o-hydroxybenzoic acid in 3-steps, afforded the HCl salt of azaspiroundecane II (E = H) in 99% yield. In human δ opioid receptor inhibition assays, 14-examples of compds. I exhibited Ki values ranging from 0.36-54 nM, e.g., the Ki value of azaspiroundecane hydrochloride II (E = H) was 0.93 nM.

IT 850174-29-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of azaspiroundecanes and related compds. as δ opioid receptor ligands)

RN 850174-29-7 CAPLUS

CN Glycine, N-methyl-N-(4-spiro[2H-1-benzopyran-2,4'-piperidin]-4-ylbenzoyl)-, ethyl ester (CA INDEX NAME)



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 26 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:36489 CAPLUS
DN 142:110067
TI Fluorescent ligands for G protein-coupled receptor arrays
IN Fang, Ye; Hong, Yulong; Peng, Jinlin
PA USA
SO U.S. Pat. Appl. Publ., 22 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050009205	A1	20050113	US 2003-741213	20031219
	WO 2005066633	A2	20050721	WO 2004-US41935	20041213
	WO 2005066633	A3	20060216		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 20060148101	A1	20060706	US 2006-363400	20060227
	US 20070238197	A9	20071011		
PRAI	US 2003-486592P	P	20030711		
	US 2001-854786	A2	20010514		
	US 2003-639718	A2	20030812		
	US 2003-741213	A	20031219		

AB A fluorescent ligand includes a material having a binding affinity in the range of about 0.01 to about 25 nM, or about 0.1 to about 10 nM; a specificity to its cognate receptor in the range of about 50 to about 99%, or about 65 to about 99%; a cross-activity to other receptors of 0 to about 20%, or 0 to about 10%; a net charge per ligand of about -3 to about +5, or more preferably, about -2 to about +2 or most preferably for small compound ligands about -1 to about +2. The ligand may also have a hydrophobicity in the range of about 3 to about 55 min eluting time (as measured under specified eluting conditions). Thus, motilin 1-16 was

labeled with Bodipy-TMR, rhodamine or Cy5 and used to screen motilin receptor arrays. Cy5-naltrexone was used for screening δ2 opioid receptors and Cy5-neurotensin 2-13, NTR1 receptors.

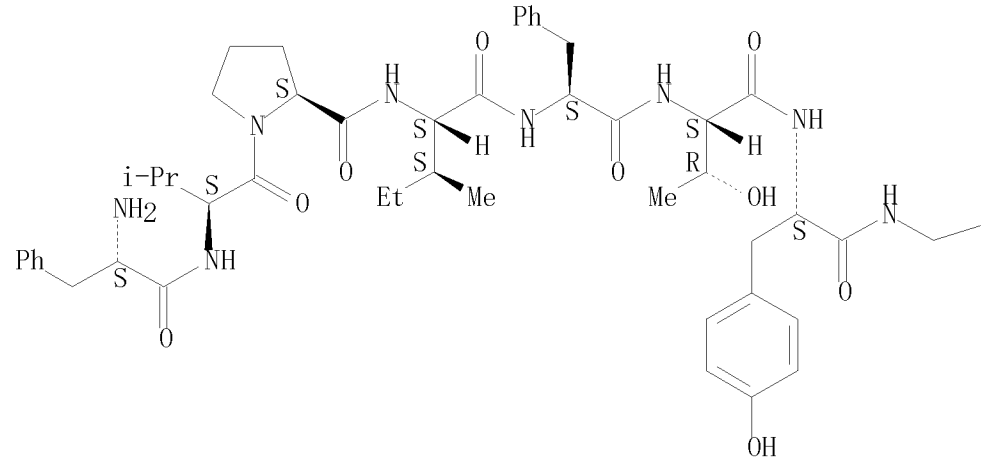
IT 821794-65-4
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent ligands for G protein-coupled receptor arrays)

RN 821794-65-4 CAPLUS

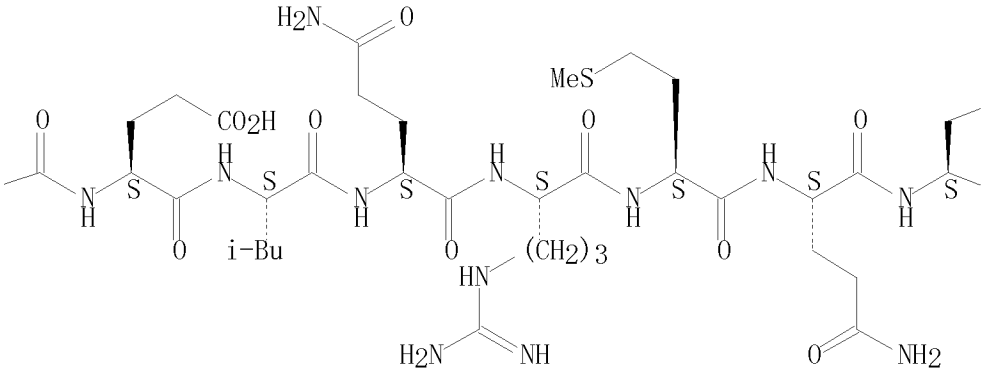
CN L-Lysine, L-phenylalanyl-L-valyl-L-prolyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-tyrosylglycyl-L-α-glutamyl-L-leucyl-L-glutaminyl-L-arginyl-L-methionyl-L-glutaminyl-L-α-glutamyl-N6-[3-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

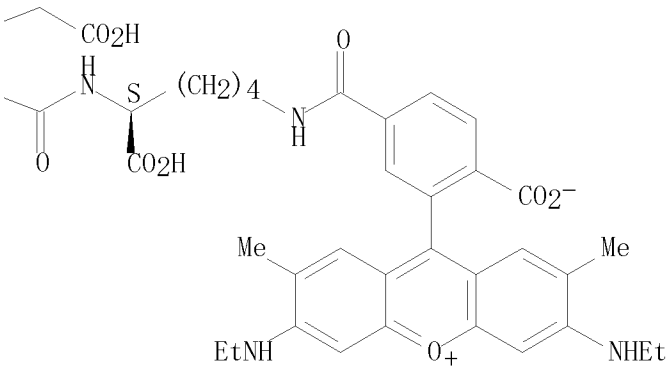
PAGE 1-A



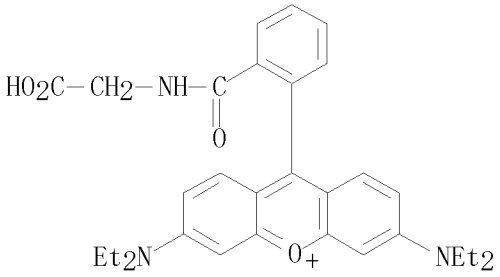
PAGE 1-B



PAGE 1-C



L7 ANSWER 27 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:985429 CAPLUS
DN 143:165621
TI Study on novel fluorescent probe containing rhodamine structure. (I) - tautomerism and spectroscopic characteristics
AU Yu, Mei-juan; Meng, Qing-hua; Zheng, Yi-ning; Zhang, Hai-feng; Zeug, Yuan
CS Sch. Chem. Chem. Eng., Shanghai Jiaotong Univ., Shanghai, 200240, Peop. Rep. China
SO Ranliao Yu Ranse (2004), 41(4), 187-190
CODEN: RYRAAY; ISSN: 1672-1179
PB Ranliao Yu Ranse Bianjibu
DT Journal
LA Chinese
AB Rhodamine B N-succinimidyl ester is a novel amine reactive fluorescent probe. Both UV/visible spectra and fluorescence spectra of the labeled compds. were studied in different pH media. The correlation between protonation, tautomerism and spectra properties is discussed. N-substituted rhodamine amides would readily change to nonfluorescent spirolactams in alkaline or neutral medium.
IT 794486-63-8
RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
(tautomerism and spectroscopic properties of derivs. of amines and Rhodamine B succinimidyl ester fluorescent probe)
RN 794486-63-8 CAPLUS
CN Xanthylium, 9-[2-[[(carboxymethyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)- (CA INDEX NAME)



L7 ANSWER 28 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:878499 CAPLUS
DN 141:328168
TI Acyl-phosphate probes, methods for their synthesis, and their use in protein labeling
IN Campbell, David Alan; Liyanage, Marek; Szardenings, Anna Katrin; Wu, Min
PA Activx Biosciences, Inc., USA
SO PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004090154	A2	20041021	WO 2004-US10075	20040401
	WO 2004090154	A3	20050506		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004227362	A1	20041021	AU 2004-227362	20040401
	AU 2004227362	B2	20080626		
	CA 2521130	A1	20041021	CA 2004-2521130	20040401
	US 20050043507	A1	20050224	US 2004-817454	20040401
	US 7365178	B2	20080429		
	EP 1616034	A2	20060118	EP 2004-758736	20040401
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	JP 2006526010	T	20061116	JP 2006-509592	20040401
PRAI	US 2003-459797P	P	20030401		
	WO 2004-US10075	A	20040401		

OS MARPAT 141:328168
AB The present invention provides tagged acyl phosphate probes ('TAPPs'), and methods of their preparation and use. The subject methods and compns. can provide enhanced simplicity and accuracy in identifying changes in the presence, amount, or activity of target proteins in a complex protein mixture, preferably nucleotide binding proteins using nucleotide binding protein-directed TAPPs. The profiling methods described herein can have a number of steps leading to the identification of target nucleotide binding protein(s) in a complex protein mixture Thus, 32 different nucleotides

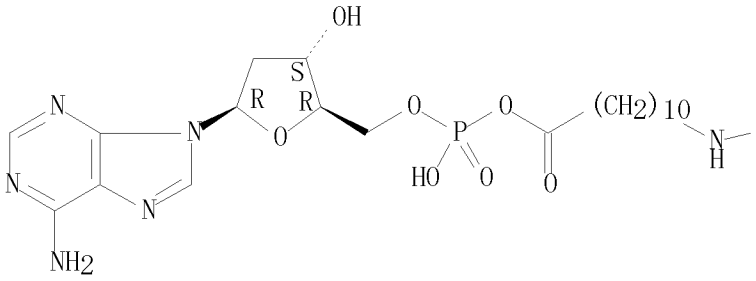
labeled via a phosphate group with fluorophores or biotin were synthesized. These were used to label protein mixts. Labeled nucleotide-binding proteins were isolated by affinity chromatog. and identified by mass spectrometry.

IT 773149-33-0P 773149-34-1P 773149-35-2P
773149-36-3P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(acyl-phosphate probes, methods for their synthesis, and their use in protein labeling)

RN 773149-33-0 CAPLUS
CN 5'-Adenylic acid, 2'-deoxy-, monoanhydride with 9-[2-carboxy-5-[[(10-carboxydecyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)xanthylium inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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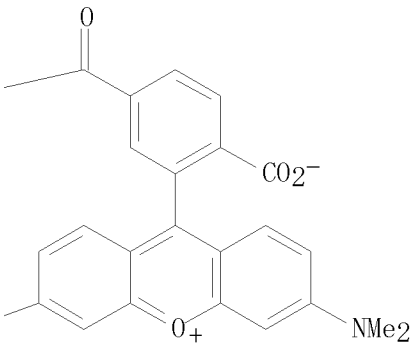
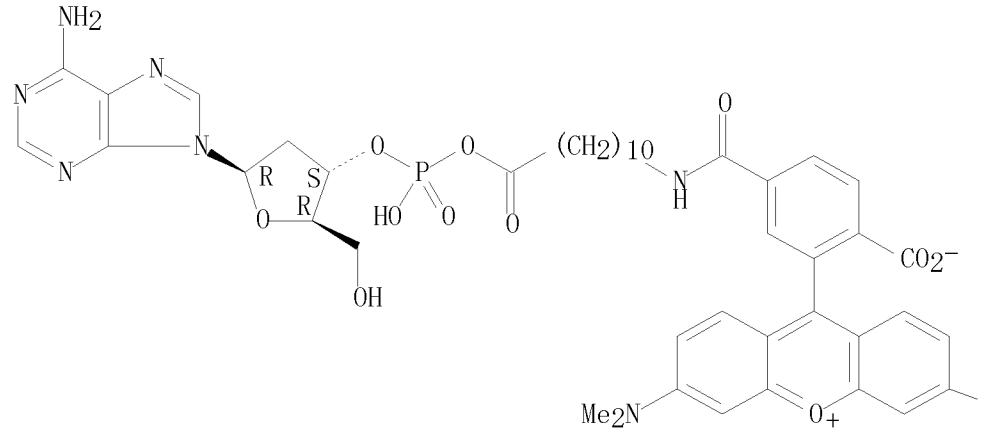


RN 773149-34-1 CAPLUS
CN 3'-Adenylic acid, 2'-deoxy-, monoanhydride with 9-[2-carboxy-5-[[(10-carboxydecyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)xanthylium inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



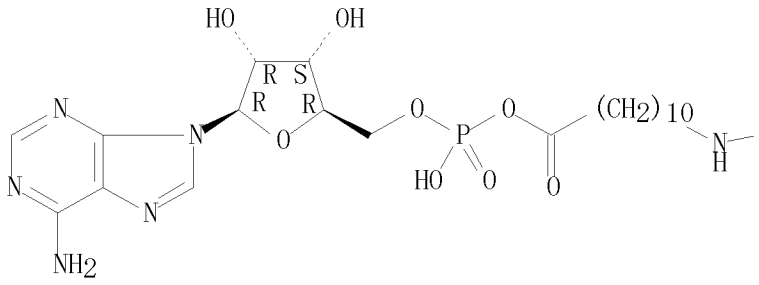
PAGE 1-B

NMe2

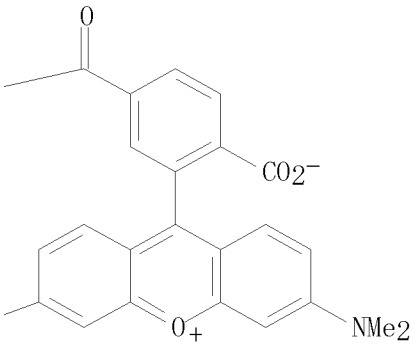
RN 773149-35-2 CAPLUS
CN 5'-Adenylic acid, monoanhydride with 9-[2-carboxy-5-[[(10-carboxydecyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)xanthylium inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

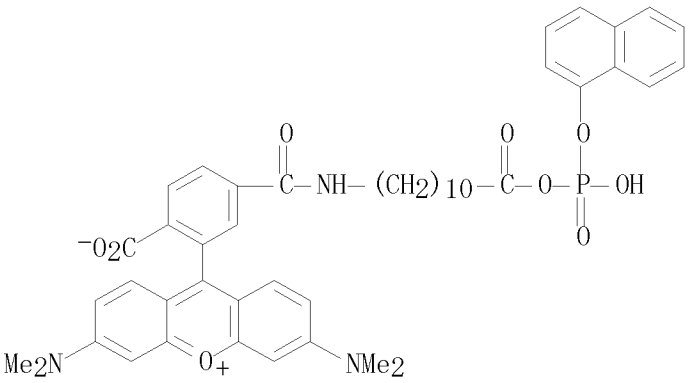
PAGE 1-A



PAGE 1-B



RN 773149-36-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[[11-[[hydroxy(1-naphthalenyloxy)phosphinyl]oxy]-11-oxoundecyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

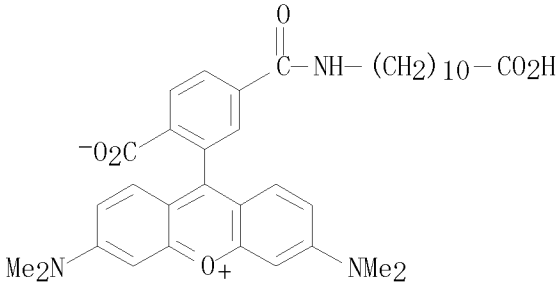


IT 773149-32-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(acyl-phosphate probes, methods for their synthesis, and their use in protein labeling)

RN 773149-32-9 CAPLUS

CN Xanthylium, 9-[2-carboxy-5-[[(10-carboxydecyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



L7 ANSWER 29 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2004:802571 CAPLUS

DN 141:301460

TI Heterobifunctional polymeric bioconjugates

IN Greenwald, Richard B.; Zhao, Hong

PA Enzon Pharmaceuticals, Inc., USA

SO U.S. Pat. Appl. Publ., 39 pp.
CODEN: USXXCO

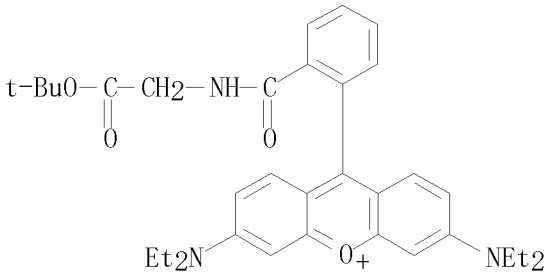
DT Patent

LA English

FAN.CNT 1

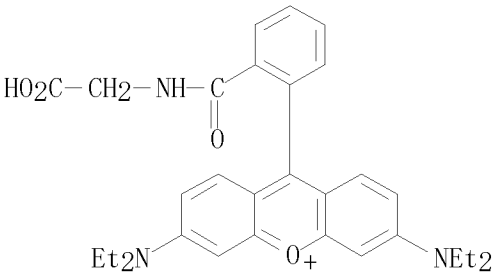
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040192769	A1	20040930	US 2003-394393	20030321
	US 7332164	B2	20080219		
	AU 2004223952	A1	20041007	AU 2004-223952	20040312
	CA 2517459	A1	20041007	CA 2004-2517459	20040312
	WO 2004085386	A2	20041007	WO 2004-US7599	20040312
	WO 2004085386	A3	20041223		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1605953	A2	20051221	EP 2004-720371	20040312
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	CN 1761473	A	20060419	CN 2004-80007673	20040312
	JP 2006523256	T	20061012	JP 2006-507123	20040312
	NZ 542138	A	20090131	NZ 2004-542138	20040312
	RU 2361596	C2	20090720	RU 2005-132471	20040312
	IN 2005MN00989	A	20060519	IN 2005-MN989	20050912
	FI 2005000932	A	20050919	FI 2005-932	20050919
	MX 2005010118	A	20060308	MX 2005-10118	20050921

US 20080076792 A1 20080327 US 2007-861091 20070925
PRAI US 2003-394393 A 20030321
WO 2004-US7599 A 20040312
OS MARPAT 141:301460
AB Heterobifunctional polymeric prodrug platforms for delivering biol. active compds., such as proteins, monoclonal antibodies, drugs, peptides, enzymes, oligonucleotides, steroids and lipids, or diagnostic agent selected from green fluorescent protein (GFP), dyes, chelating agents, and isotope-labeled compds. are disclosed. Methods of making and using the compds. and conjugates described herein are also provided. For example, the preparation of a monoclonal antibody CC 49 conjugate with PEG derivative is presented.
IT 765301-46-0P 765301-47-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of heterobifunctional polymeric bioconjugates for therapy and diagnostics)
RN 765301-46-0 CAPLUS
CN Xanthylium, 3,6-bis(diethylamino)-9-[2-[[[2-(1,1-dimethylethoxy)-2-oxoethyl]amino]carbonyl]phenyl]-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RN 765301-47-1 CAPLUS
CN Xanthylium, 9-[2-[[(carboxymethyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

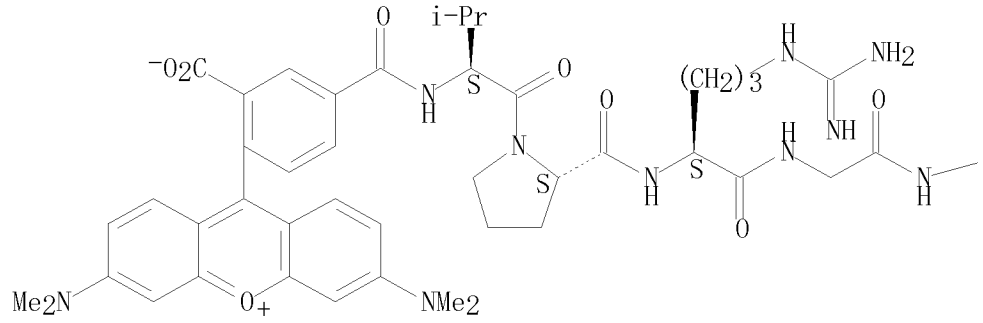
L7 ANSWER 30 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:729640 CAPLUS
DN 141:256957
TI Fluorogenic protease substrates based on dye-dimerization
IN Wei, Ai-ping; Williams, Michael George
PA 3M Innovative Properties Company, USA
SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 846,828, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6787329	B1	20040907	US 1999-448633	19991124
	CN 1254383	A	20000524	CN 1997-182147	19970908
	US 20050089946	A1	20050428	US 2004-930522	20040831
	US 7256012	B2	20070814		
PRAI	US 1997-846828	B2	19970501		
	US 1999-448633	A1	19991124		

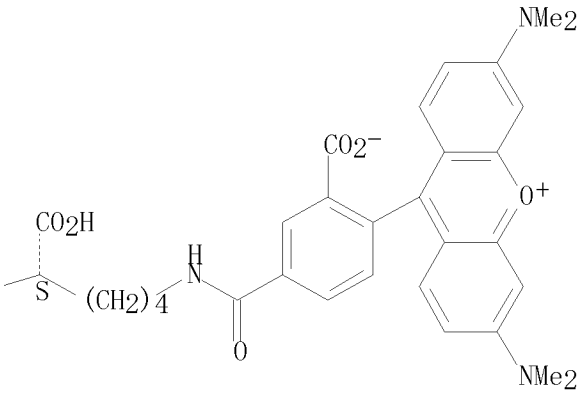
OS MARPAT 141:256957
AB A method of biol. assay comprises the steps of providing an enzyme substrate comprising two fluorescence dye groups bound to a flexible peptide, the dye groups being of proximity sufficiently close so as to allow free energy attractions to draw the dyes together to essentially self-quench fluorescence of the dye groups, wherein self quenching of fluorescence of the dye groups is effected by dye dimerization or stacking, and enzymically cleaving the peptide to release the fluorescence dye groups from dye dimerization or stacking, thereby producing an increase in fluorescence intensity. A protease substrate for use in the method of the invention is also disclosed. This invention finds use in detection and identification of microorganisms, sterilization assurance, pharmaceutical discovery, enzyme assays, immunoassays, and other biol. assays. Vibrio parahaemolyticus was detected using TMR-Val-Pro-Arg-Gly-Lys-TMR. Cleavage by the trypsin-like enzyme of the microorganism produced an increase in fluorescence.
IT 216006-99-4P
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(protease substrate; fluorogenic protease substrates based on dye-dimerization for use as assay reagents)
RN 216006-99-4 CAPLUS
CN L-Lysine, N-[3-carboxy-4-[3,6-bis(dimethylamino)xanthylium-9-yl]benzoyl]-L-valyl-L-prolyl-L-arginylglycyl-N6-[3-carboxy-4-[3,6-bis(dimethylamino)xanthylium-9-yl]benzoyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 31 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:534267 CAPLUS
DN 141:90502
TI Carboxamide-substituted dyes for analytical applications
IN Arden-Jacob, Jutta; Drexhage, Karl-Heinz; Hamers-Schneider, Monika; Kemnitzer, Norbert; Zilles, Alexander
PA Atto-Tec GmbH, Germany
SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004055117	A2	20040701	WO 2003-EP14534	20031218
	WO 2004055117	A3	20040819		

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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	DE 10259374	A1	20040708	DE 2002-10259374	20021218
	AU 2003300216	A1	20040709	AU 2003-300216	20031218
	EP 1576059	A2	20050921	EP 2003-799491	20031218
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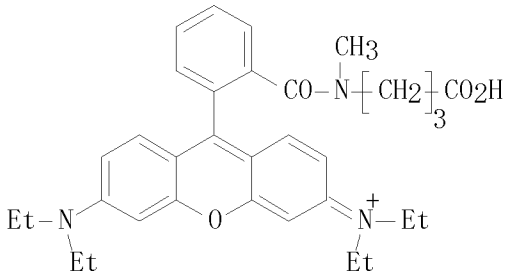
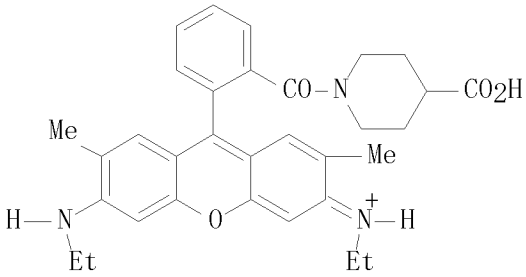
	US 20060154251	A1	20060713	US 2005-539790	20050617
PRAI	DE 2002-10259374	A	20021218		
	WO 2003-EP14534	W	20031218		

OS CASREACT 141:90502; MARPAT 141:90502

GI



I



II

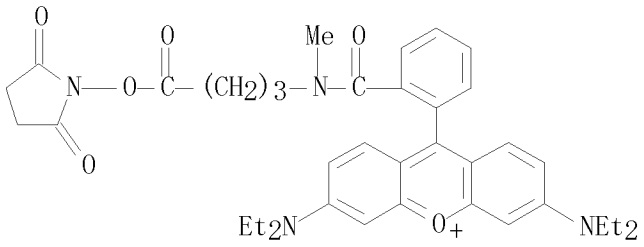
AB Fluorescent dyes (mostly rhodamine, thiorhodamine, selenorhodamine, rhodol, carbopyronine, triphenylmethane and amidopyrilium derivs.) with improved water solubility, in which lactone or lactam group group is modified with carboxamide-group, such as I (including multichromophore-containing mols., such as bichromophoric II) are useful for anal. application in vivo and in vitro, in labeling and diagnostic systems, in immunol. and nucleic acid hybridization method, and in peptide, polypeptide, nucleic acid and its analog, nucleoside, nucleotide and hapten conjugates. These dyes are prepared by reacting lactone or lactam form of these dyes (activated by interaction with imides) with secondary amines at 23° -60° in aprotic solvents. Thus, mixing 1 g of Rhodamine B chloride, 0.7 mg of O-(N-succinimidyl)-N,N,N',N'-tetramethyluronium tetrafluoroborate (III) and 0.7 mL N-ethyl-diisopropylamine (IV) in acetonitrile 2 h at room temperature gives after appropriate treatment and drying 0.8 g of rhodamine B NHS-ester (V). Heating 0.5 g of V, 0.25 g of butanoic acid 4-(methylamino)-hydrochloride and 0.27 mL of IV in 40 mL of acetonitrile gives 0.3 g of I. The conjugate of I with cysteine is prepared by treatment

of aminoethyl maleimide of I (prepared from V by mixing 5 h at room temperature with IV and aminoethyl maleic acid imide) solution in EtOH with cysteine for 2 h at room temperature and adding 50 mL of NaClO4 solution

IT 713519-85-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(carboxamide-substituted fluorescent dye manufacture for anal. applications)

RN 713519-85-8 CAPLUS

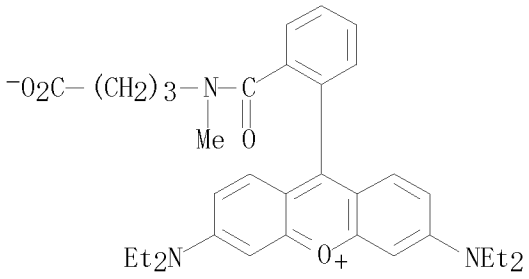
CN Xanthylium, 3,6-bis(diethylamino)-9-[2-[[[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]methylamino]carbonyl]phenyl]- (CA INDEX NAME)



IT 713519-61-0P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(carboxamide-substituted fluorescent dye manufacture for anal. applications)

RN 713519-61-0 CAPLUS

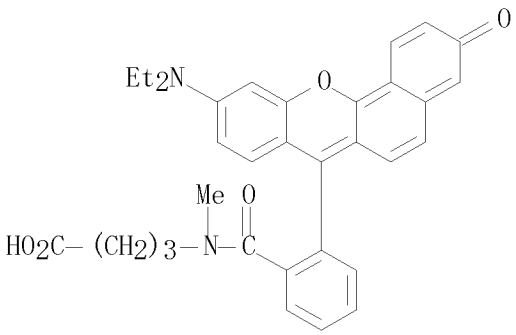
CN Xanthylium, 9-[2-[[(3-carboxypropyl)methylamino]carbonyl]phenyl]-3,6-bis(diethylamino)-, inner salt (CA INDEX NAME)



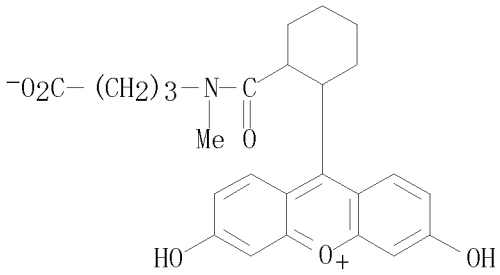
IT 713519-70-1P 713519-80-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(carboxamide-substituted fluorescent dye manufacture for anal. applications)

RN 713519-70-1 CAPLUS

CN Butanoic acid, 4-[[2-[10-(diethylamino)-3-oxo-3H-benzo[c]xanthen-7-yl]benzoyl]methylamino]- (CA INDEX NAME)



RN 713519-80-3 CAPLUS
CN Xanthylium, 9-[2-[[(3-carboxypropyl)methylamino]carbonyl]cyclohexyl]-3,6-dihydroxy-, inner salt (CA INDEX NAME)



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 32 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:481799 CAPLUS
DN 141:39726
TI Rhodamine-based fluorophores useful as labeling reagents
IN Chiarello, Ronald H.; Liu, Wing; Yokobata, Kathy E.
PA Syngen, Inc., USA
SO U.S., 13 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

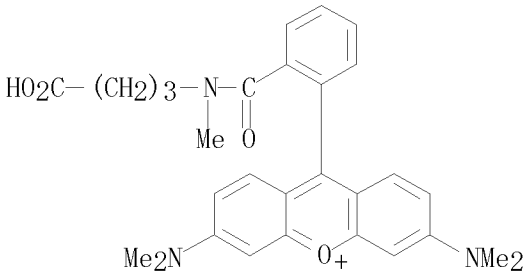
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6750357	B1	20040615	US 1999-344226	19990625
	TW 277619	B	20070401	TW 2000-89112501	20000707
	US 20030104380	A1	20030605	US 2001-894423	20010628
	US 20040234957	A9	20041125		
	US 7183405	B2	20070227		
PRAI	US 1999-344226	A	19990625		

OS MARPAT 141:39726
AB Fluorescent dyes based on rhodamine are derivatized to form labeled conjugates that fluoresce upon excitation with light of an appropriate wavelength. Particularly preferred embodiments are certain single isomer form rhodamine phosphoramidites. These rhodamine phosphoramidites enhance the efficiency of synthesizing rhodamine-labeled oligonucleotides by solid phase methods. Conjugate embodiments of the invention are prevented from

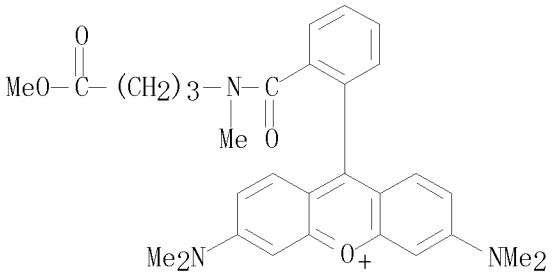
being converted to a non-fluorescent lactam form due to having a fully substituted amide linkage derived from the 3-position carboxylate.

IT 702686-39-3P 702686-40-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of rhodamine-based fluorophores useful as labeling reagents)

RN 702686-39-3 CAPLUS
CN Xanthylium, 9-[2-[[(3-carboxypropyl)methylamino]carbonyl]phenyl]-3,6-bis(dimethylamino)- (CA INDEX NAME)

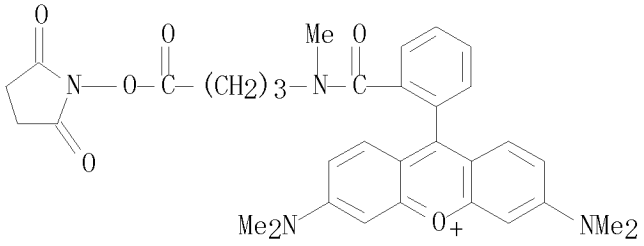


RN 702686-40-6 CAPLUS
CN Xanthylium, 3,6-bis(dimethylamino)-9-[2-[[(4-methoxy-4-oxobutyl)methylamino]carbonyl]phenyl]- (CA INDEX NAME)

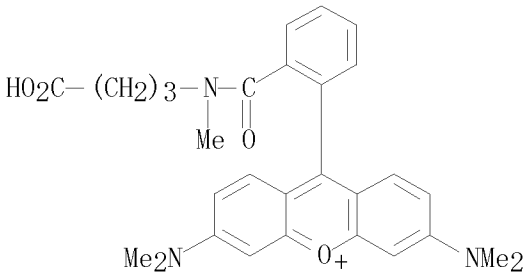


IT 435304-72-6P 702686-39-3DP, reaction products with functional pore glass
RL: IMF (Industrial manufacture); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(preparation of rhodamine-based fluorophores useful as labeling reagents)

RN 435304-72-6 CAPLUS
CN Xanthylium, 3,6-bis(dimethylamino)-9-[2-[[[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]methylamino]carbonyl]phenyl]- (CA INDEX NAME)



RN 702686-39-3 CAPLUS
CN Xanthylium, 9-[2-[[(3-carboxypropyl)methylamino]carbonyl]phenyl]-3,6-bis(dimethylamino)- (CA INDEX NAME)

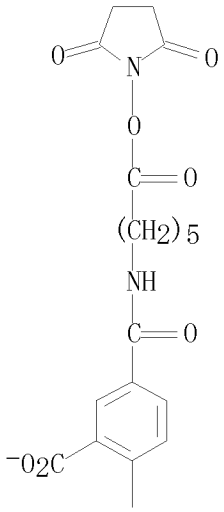


RE.CNT 90 THERE ARE 90 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

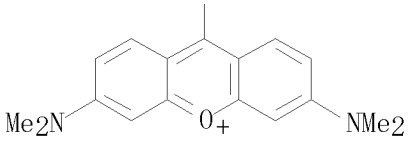
L7 ANSWER 33 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:459212 CAPLUS
DN 141:153303
TI Dye-Labeled Benzodiazepines: Development of Small Ligands for Receptor Binding Studies Using Fluorescence Correlation Spectroscopy
AU Hegener, Oliver; Jordan, Randolf; Haeberlein, Hanns
CS Department of Pharmaceutical Biology, Philipps-University of Marburg, Marburg, D-35032, Germany
SO Journal of Medicinal Chemistry (2004), 47(14), 3600-3605
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:153303
AB To investigate benzodiazepine receptor binding studies by fluorescence correlation spectroscopy (FCS), the four fluorophores fluorescein, tetramethylrhodamine, Oregon Green 488, and Alexa 532 were coupled to the benzodiazepine Ro 07-1986/602 (Ro). Binding assays to polyclonal antibodies to benzodiazepines and at the native benzodiazepine receptor on the membrane of rat hippocampal neurons were established to examine the dye-labeled ligands for their benzodiazepine character and their binding behavior. Both the fluorescein and the Oregon Green 488 moiety led to a loss of the benzodiazepine receptor binding of the corresponding Ro derivs. Antibody recognition and interactions to the receptor were observed for the tetramethylrhodamine derivative (KD = 96.0±9.5nM) but with a high amount of nonspecific binding at the cell membrane of about 50%. In saturation expts. a KD value of 97.2±8.5nM was found for the Alexa Fluor 532 derivative-antibody interaction. Investigation of the binding of this ligand to the benzodiazepine receptor in FCS cell measurements led to confirmation of high specific binding behavior with a KD value of 9.9±1.9nM. A nonspecific binding of <10% was observed after coincubation with 1 μM of midazolam. The different properties of the labeled benzodiazepine derivs. and the requirements of the fluorophore in small dye-labeled ligands in FCS binding studies, at the membrane of living cells, are discussed.
IT 380304-22-3 457075-12-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(dye-labeled benzodiazepines as small ligands for receptor binding studies using fluorescence correlation spectroscopy)
RN 380304-22-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-

oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

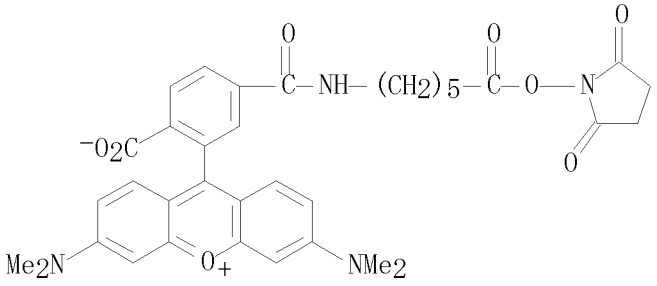
PAGE 1-A



PAGE 2-A



RN 457075-12-6 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 34 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:414513 CAPLUS
DN 140:419882
TI Fluorescent peptide substrates for the detection of enzyme activity in biological samples
IN Packard, Beverly S.; Komoriya, Akira
PA OncoImmunin, Inc., USA
SO U.S. Pat. Appl. Publ., 114 pp., Cont.-in-part of Appl. No. PCT/US00/24882.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040096926	A1	20040520	US 2001-874350	20010604
	US 7312302	B2	20071225		
	US 6037137	A	20000314	US 1997-802981	19970220
	WO 9837226	A1	19980827	WO 1998-US3000	19980220
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6936687	B1	20050830	US 1999-394019	19990910
	WO 2001018238	A1	20010315	WO 2000-US24882	20000911
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 20080199898	A1	20080821	US 2007-941766	20071116
	JP 2008167757	A	20080724	JP 2008-21366	20080131
PRAI	US 1997-802981	A2	19970220		
	WO 1998-US3000	A2	19980220		
	US 1999-394019	A2	19990910		
	WO 2000-US24882	A2	20000911		
	JP 1998-536778	A3	19980220		
	US 2001-874350	A3	20010604		

OS MARPAT 140:419882
AB The present invention provides for novel reagents whose fluorescence increases in the presence of particular proteases. The reagents comprise a characteristically folded peptide backbone conjugated to two fluorophores such that the fluorophores are located opposite sides of a cleavage site. When the folded peptide is cleaved, as by digestion with a protease, the fluorophores provide a high intensity fluorescent signal at a visible wavelength. Because of their high specificity and their high fluorescence signal in the visible wavelengths, these protease indicators are particularly well suited for detection of protease activity in biol. samples, in particular in frozen tissue sections. In one example, the protease indicator having the formula F1-Asp-Ala-Ile-Pro-Nle-Ser-Ile-Pro-Cys-F2, where F1 is a donor fluorophore (5-carboxytetramethylrhodamine) linked to aspartic acid via the α-amino group and F2 is an acceptor fluorophore (rhodamine X acetamide (R492)) linked via the sulfhydryl group of the cysteine,

exhibits changes in emission spectrum after addn of an elastase protease. Thus this invention also provides for methods of detecting protease activity in situ in frozen sections.

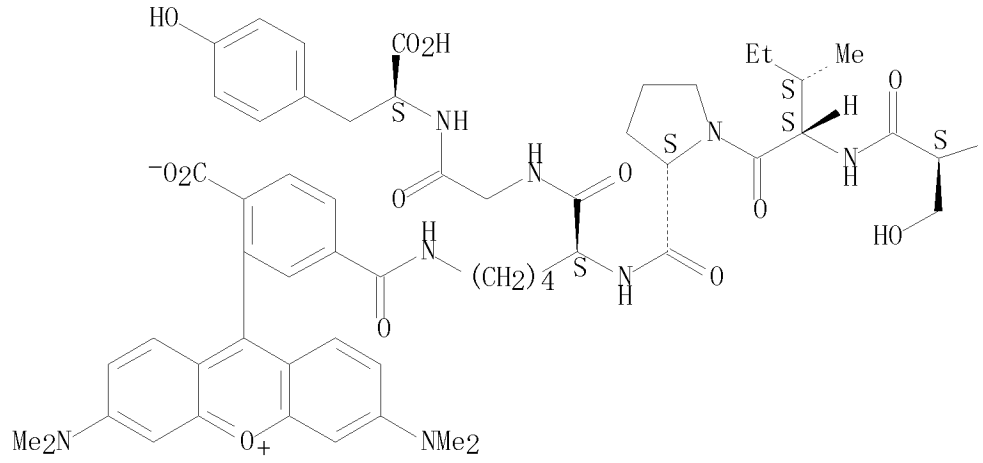
IT 212207-37-9 691868-32-3 691868-33-4
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(fluorescent peptide substrates for the detection of enzyme activity in biol. samples)

RN 212207-37-9 CAPLUS

CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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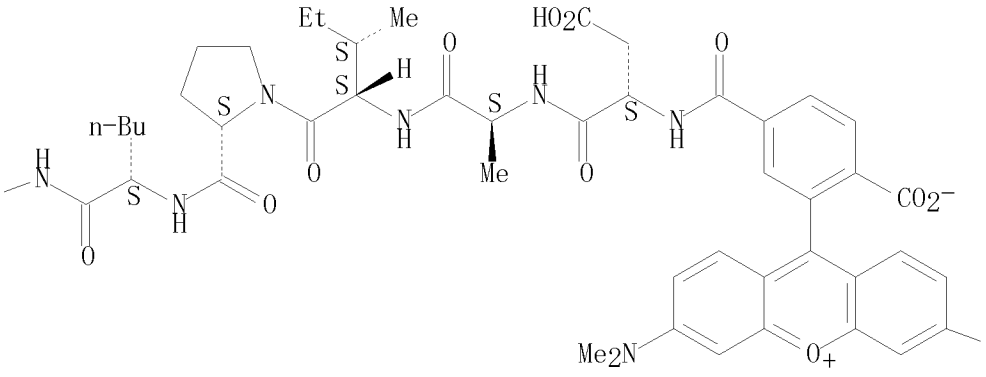
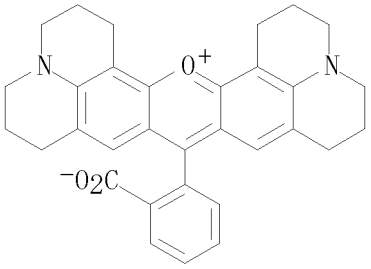


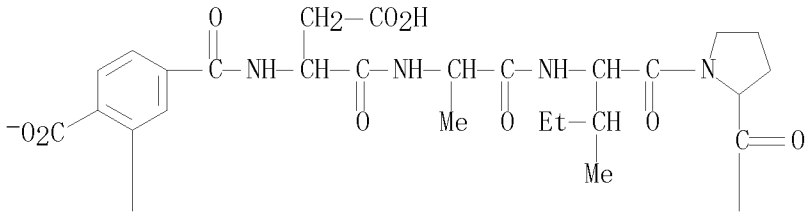
PAGE 1-C

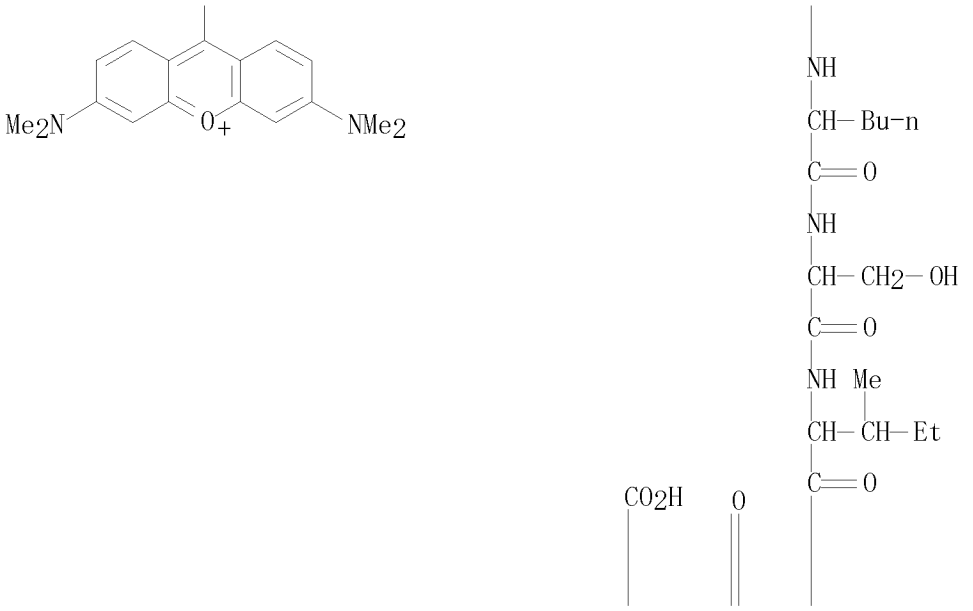
NMe2

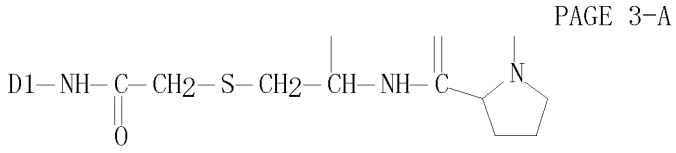
RN 691868-32-3 CAPLUS
CN L-Cysteine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A



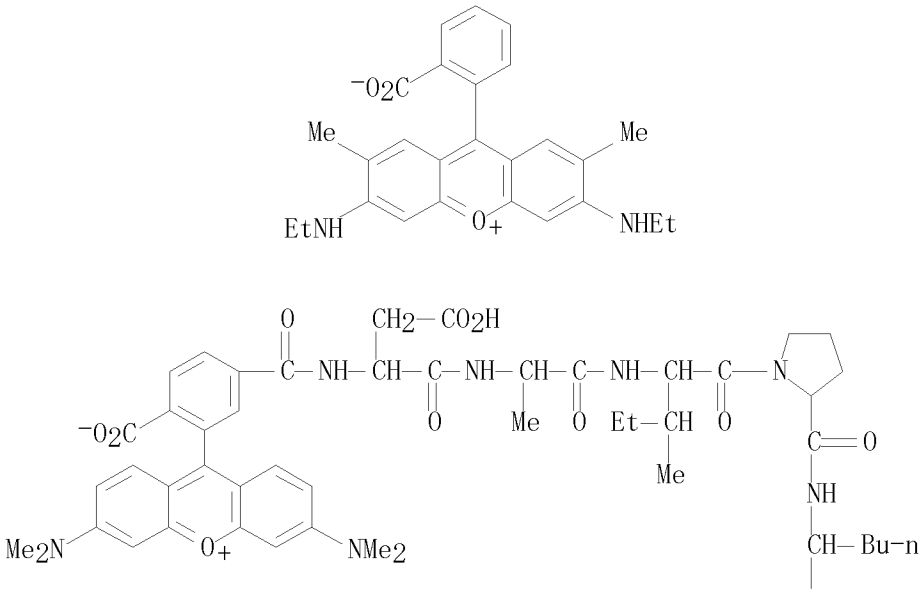




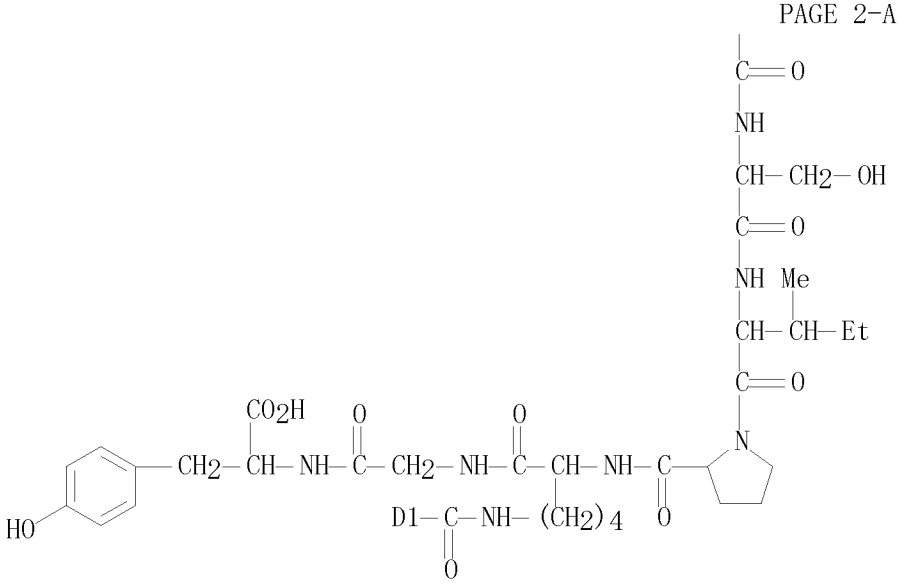


RN 691868-33-4 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-4(or 3)-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 35 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:392613 CAPLUS
DN 140:388248
TI Nucleotide-binding protein-directed probes and their use in determining enzyme profiles
IN Campbell, David Alan; Szardenings, Anna Katrin; Shreder, Kevin Robert; Betancort, Juan Manuel; Winn, David

PA Activx Biosciences, Inc., USA
SO PCT Int. Appl., 131 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004040003	A2	20040513	WO 2003-US34550	20031029
WO 2004040003	A3	20041223		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003298608	A1	20040525	AU 2003-298608	20031029
PRAI US 2002-422304P	P	20021029		
WO 2003-US34550	W	20031029		

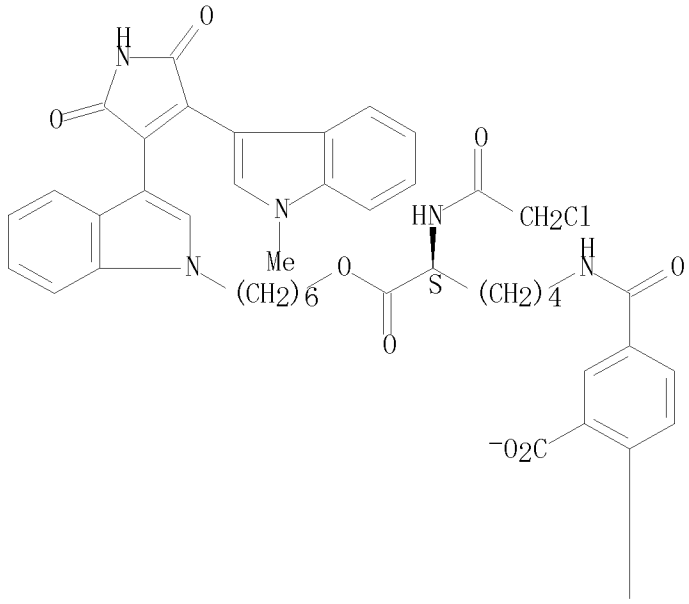
AB The present invention provides nucleotide binding protein-directed affinity probes (NBAPs), such as derivs. of 4-phenylaminoquinazoline, staurosporine, bis-indolemaleimide, pyrido[2,3-d]pyrimidine, and adenine, and methods for their use. The NBAP generally comprises the aforementioned targeting moiety, a reactive group (thiocyanate, maleimide, etc.), and a label (fluorescein, rhodamine, etc.). The subject methods and compns. can provide enhanced simplicity and accuracy in identifying changes in the presence, amount, or activity of nucleotide binding proteins in a complex protein mixture, preferably kinases, and most preferably active forms of kinases, using NBAPs that bind to target nucleotide binding protein(s).

IT 688025-02-7P 688025-08-3P 688025-12-9P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(nucleotide-binding protein-directed probes and their use in determining enzyme profiles)

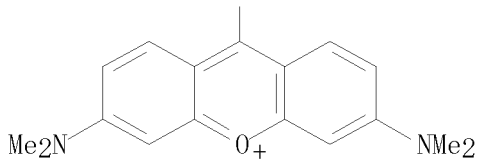
RN 688025-02-7 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(5S)-5-[(2-chloroacetyl)amino]-6-[[6-[3-[2,5-dihydro-4-(1-methyl-1H-indol-3-yl)-2,5-dioxo-1H-pyrrol-3-yl]-1H-indol-1-yl]hexyl]oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



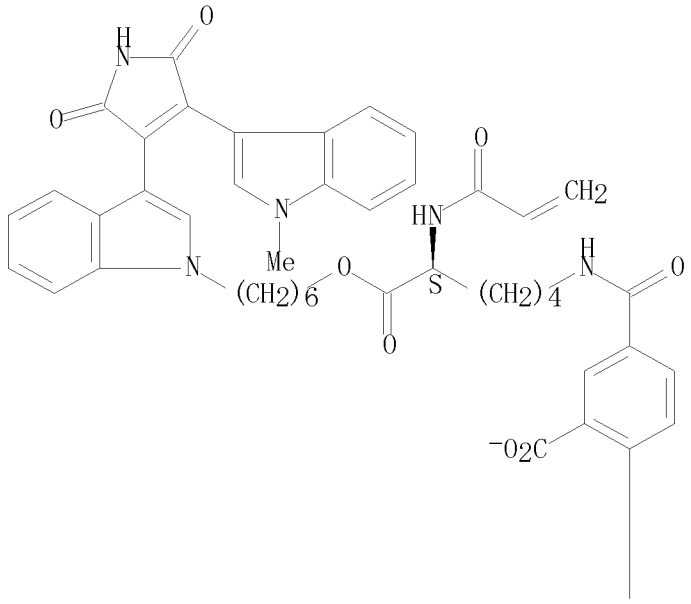
PAGE 2-A



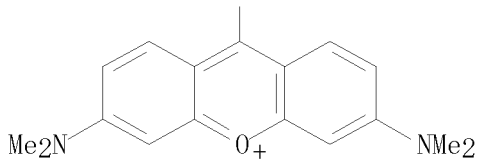
RN 688025-08-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(5S)-6-[[6-[3-[2,5-dihydro-4-(1-methyl-1H-indol-3-yl)-2,5-dioxo-1H-pyrrol-3-yl]-1H-indol-1-yl]hexyl]oxy]-6-oxo-5-[(1-oxo-2-propen-1-yl)amino]hexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



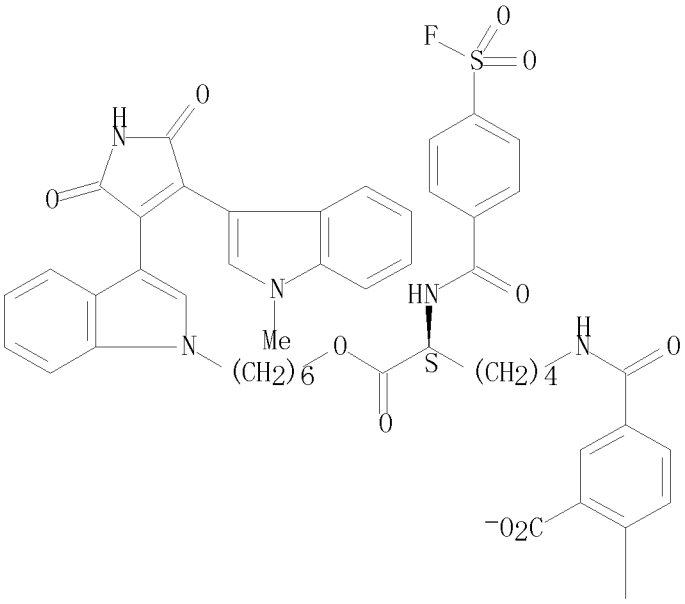
PAGE 2-A



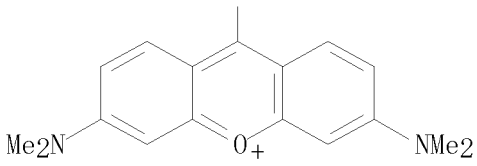
RN 688025-12-9 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(5S)-6-[[6-[3-[2,5-dihydro-4-(1-methyl-1H-indol-3-yl)-2,5-dioxo-1H-pyrrol-3-yl]-1H-indol-1-yl]hexyl]oxy]-5-[[4-(fluorosulfonyl)benzoyl]amino]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 36 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:185074 CAPLUS
DN 142:34647
TI Dynamic analysis of apoptosis in primary cortical neurons by fixed- and real-time cytofluorometry
AU Lecoeur, H.; Chauvier, D.; Langonne, A.; Rebouillat, D.; Brugg, B.; Mariani, J.; Edelman, L.; Jacotot, E.
CS Institut Pasteur, Pasteur Biotop, Theraptosis Research Laboratory, THERAPTOSIS S.A., Paris, 75015, Fr.
SO Apoptosis (2004), 9(2), 157-169
CODEN: APOPFN; ISSN: 1360-8185
PB Kluwer Academic Publishers
DT Journal
LA English
AB We describe here a cytofluorometric technol. for the characterization of decision, execution, and degradation steps of neuronal apoptosis. Multiparametric flow cytometry was developed and combined to detailled fluorescence microscopy observations to establish the chronol. and hierarchy of death-related events: neuron morphol. changes, mitochondrial transmembrane potential ($\Delta\Psi_m$) collapse, caspase-3 and -9 activation, phosphatidyl-serine exposure, nuclear dismantling and final

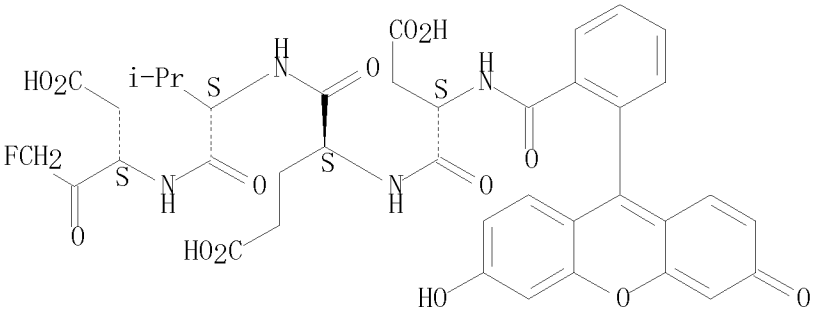
plasma membrane permeabilization. Moreover, we developed a reliable real-time flow cytometric monitoring of Δ Ψm and plasma membrane integrity in response to neurotoxic insults including MPTP treatment. Taking advantage of recently developed specific fluorescent probes and a third generation pan-caspase inhibitor, this integrated approach will be pertinent to study the cell biol. of neuronal apoptosis and to characterize new neuro-toxic/protective mols.

IT 352031-65-3, FAM-DEVD-FMK
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Fluorochrome Labeled Inhibitor of Caspase, FLICA; dynamic anal. of apoptosis in primary cortical neurons by fixed- and real-time cytofluorometry)

RN 352031-65-3 CAPLUS

CN L-Valinamide, N-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]-L-α-asparty1-L-α-glutamyl-N-[(1S)-1-(carboxymethyl)-3-fluoro-2-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 37 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:874871 CAPLUS
DN 139:360902
TI Homo-doubly fluorophore-labeled peptides for the detection of enzyme activity in biological samples
IN Packard, Beverly; Komoriya, Akira
PA Onco Immunin, Inc., USA
SO U.S. Pat. Appl. Publ., 42 pp., Cont.-in-part of Appl. No. PCT/US00/24882.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20030207264	A1	20031106	US 2000-747287	20001222
US 6893868	B2	20050517		
US 6037137	A	20000314	US 1997-802981	19970220
US 6936687	B1	20050830	US 1999-394019	19990910
WO 2001018238	A1	20010315	WO 2000-US24882	20000911

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2432973 A1 20020808 CA 2001-2432973 20011221
WO 2002061038 A2 20020808 WO 2001-US49781 20011221
WO 2002061038 A9 20021128
WO 2002061038 A3 20030313
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
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AU 2002249837 A1 20020812 AU 2002-249837 20011221
EP 1356084 A2 20031029 EP 2001-998079 20011221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
US 20050158766 A1 20050721 US 2004-15864 20041215
US 7541143 B2 20090602
JP 2008167757 A 20080724 JP 2008-21366 20080131
PRAI US 1997-802981 A2 19970220
US 1999-394019 A2 19990910
WO 2000-US24882 A2 20000911
JP 1998-536778 A3 19980220
WO 1998-US3000 A2 19980220
US 2000-747287 A 20001222
WO 2001-US49781 W 20011221

AB The present invention provides for novel reagents whose fluorescence changes upon cleavage or a change in conformation of a backbone. The reagents comprise a backbone (e.g. nucleic acid, polypeptide, etc.) joining two fluorophores of the same species whereby the fluorophores form an H-dimer resulting in quenching of the fluorescence of the fluorophores. One such fluorophore-labeled peptide comprises DAIP(Nle)SIPKGY, where the fluorophore is linked to the N-terminus via the α-amino group of aspartic acid and to the ε-amino group of lysine by the displacement of a succinimidyl group linked to 6-carboxytetramethylrhodamine (6-TMR) or 5/6-carboxy-X-rhodamine. When the backbone is cleaved or changes conformation, the fluorophores are separated, no longer forming an H-type dimer, and are de-quenched thereby providing a detectable signal. The use of a single fluorophore rather than an "acceptor-donor" fluorescence resonance energy transfer system offers synthesis and performance advantages. An addnl. discovery of this invention is that attachment of a hydrophobic protecting group to a polypeptide enhances uptake of that polypeptide by a cell. A new class of profluorescent protease substrate was designed and synthesized with spectral properties that fit the exciton model.

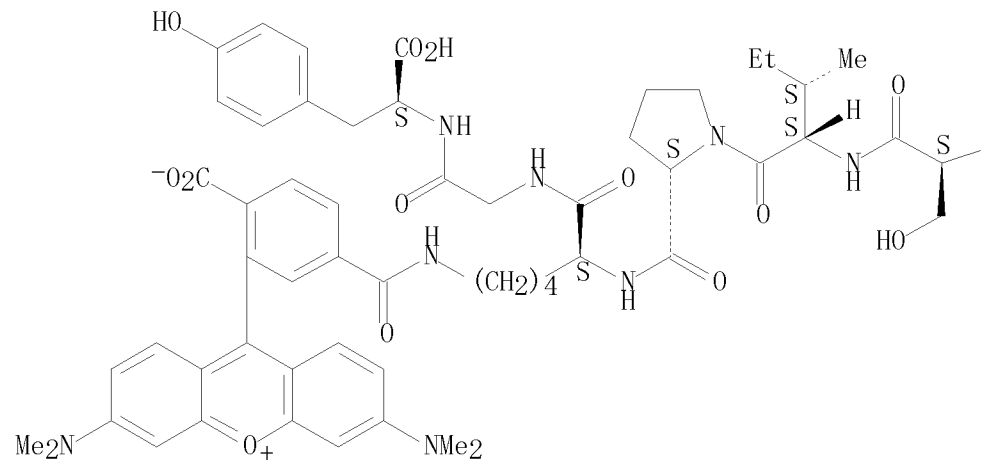
IT 212207-37-9 212268-88-7 212268-91-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (homo-doubly fluorophore-labeled peptides for the detection of enzyme activity in biol. samples)

RN 212207-37-9 CAPLUS

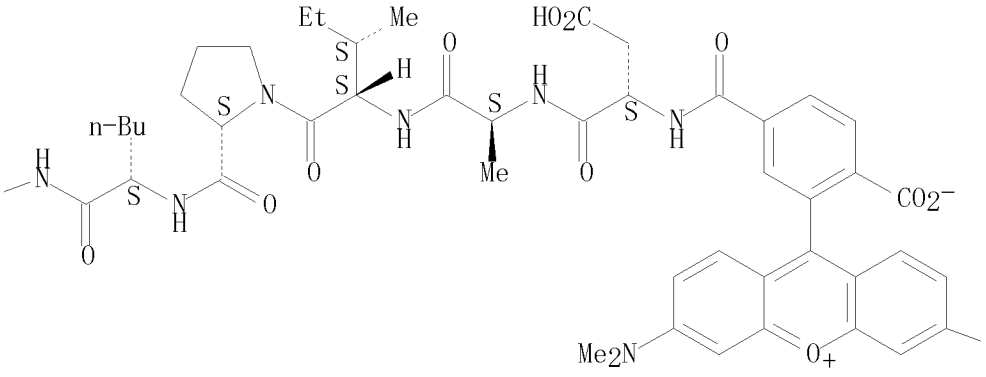
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



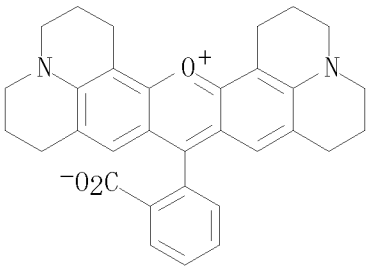
PAGE 1-C

NMe2

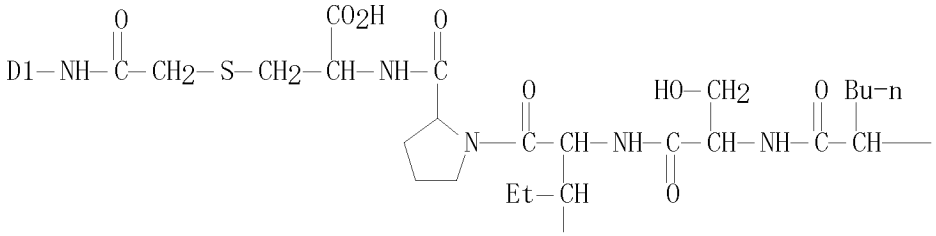
RN 212268-88-7 CAPLUS
CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-

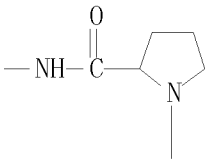
L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A



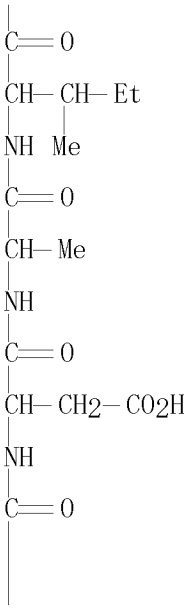
PAGE 1-B





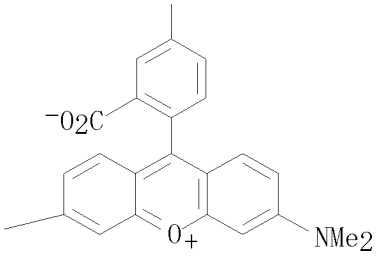
PAGE 2-A

PAGE 2-B



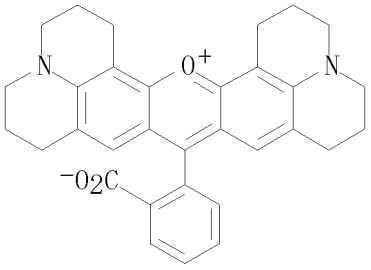
PAGE 3-A

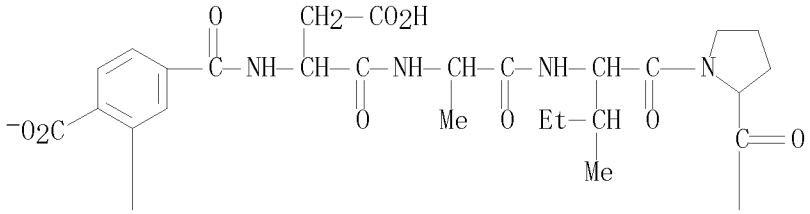
PAGE 3-B



RN 212268-91-2 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





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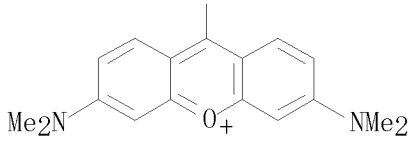
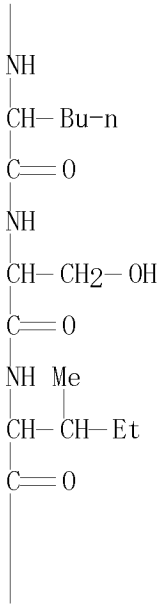
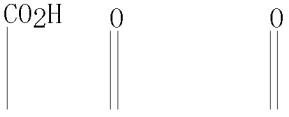
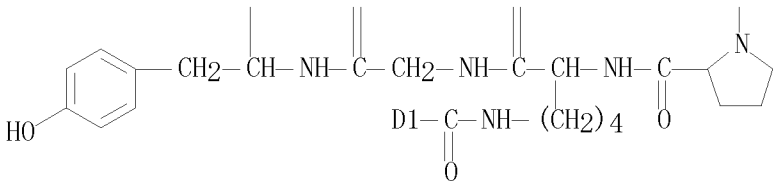






PAGE 3-A



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L7 ANSWER 38 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:825369 CAPLUS
DN 141:3134
TI Interactions of fluorochrome-labeled caspase inhibitors with apoptotic cells: a caution in data interpretation
AU Pozarowski, P.; Huang, X.; Halicka, D. H.; Lee, B.; Johnson, G.; Darzynkiewicz, Z.
CS Brander Cancer Research Institute, New York Medical College, Valhalla, NY, USA
SO Cytometry, Part A (2003), 55A(1), 50-60
CODEN: CPAYAV
PB Wiley-Liss, Inc.
DT Journal
LA English
AB Fluorochrome-labeled inhibitors of caspases (FLICA, e.g., FAM-VAD-FMK, FITC-VAD-FMK) have been designed as affinity labels of the enzyme active center of caspases. Their binding by apoptotic cells was interpreted as reflecting activation of caspases. We have recently observed, however, that their binding is more complex and may involve addnl. mechanisms. Our goal in this study was to clarify the ongoing utility of these probes. Apoptosis of HL-60, Jurkat, MCF-7 and T-24 cells was induced by the DNA topoisomerase I inhibitor, topotecan, or by oxidative stress (H2O2). Lymphocytes were induced by their mitogenic activation. Using multi-parameter laser scanning and flow cytometry anal., the correlation between FLICA binding and the number of known apoptotic indicators was examined These included: collapse of the mitochondrial transmembrane potential; activation of caspase-3 (detected immunocytochem.); binding of annexin V; chromatin condensation; the presence of DNA strand breaks; and loss of plasma membrane capability to exclude propidium iodide (PI). FLICA binding specificity was tested by pretreatment with z-VAD-FMK or z-DEVD-FMK. FLICA binding was subsequent to the collapse of mitochondrial transmembrane potential, nearly concurrent with caspase-3 activation, and preceded annexin V binding, chromatin condensation, DNA fragmentation and loss of plasma membrane integrity. The predominant portion of FAM-VAD-FMK, FITC-VAD-FMK or FAM-DEVD-FMK binding to apoptotic cells could not be inhibited by z-VAD-FMK or z-DEVD-FMK, resp., when the unlabeled inhibitors were added post-induction of apoptosis. : FLICA are specific and convenient to use markers of apoptotic cells and they detect very early events of apoptosis associated with caspases activation. Assays that combine their binding with either the loss of mitochondrial potential or with exclusion of PI as a probe of plasma membrane integrity, distinguish sequential stages of apoptosis and are particularly useful to differentiate between apoptosis and necrosis. Our results conform with the published data that unlabeled caspase inhibitors, when added after induction of apoptosis, cannot prevent activation of caspases detected by binding of biotinylated inhibitors or by cleavage of fluorogenic substrates. While FLICA binding by apoptotic cells most likely is a consequence of caspase activation, these binding events may also involve

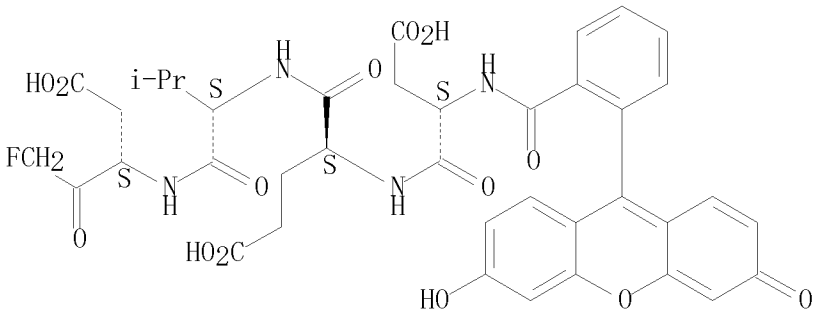
other or addnl. mechanisms than simply their specific attachment to the active enzyme centers of caspases.

IT 352031-65-3, FAM-DEVD-FMK
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(interactions of fluorochrome-labeled caspase inhibitors with apoptotic cells)

RN 352031-65-3 CAPLUS

CN L-Valinamide, N-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]-L-α-aspartyl-L-α-glutamyl-N-[(1S)-1-(carboxymethyl)-3-fluoro-2-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 39 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:777246 CAPLUS
DN 139:288636
TI Single molecule detection systems and methods
IN Williams, John G. K.; Bashford, Gregory R.
PA Li-Cor, Inc., USA
SO U.S. Pat. Appl. Publ., 60 pp., Cont.-in-part of U.S. Ser. No. 876,375.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20030186255	A1	20031002	US 2002-164685	20020605
	US 7118907	B2	20061010		
	US 20020039738	A1	20020404	US 2001-876375	20010606
	US 6869764	B2	20050322		
	WO 2002099406	A2	20021212	WO 2002-US18064	20020605
	WO 2002099406	A3	20030206		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002318334	A1	20021216	AU 2002-318334	20020605
PRAI	US 2001-876375	A2	20010606		

US 2002-381864P P 20020516
US 2000-209896P P 20000607
US 2001-286238P P 20010424
US 2002-146400 A 20020514
WO 2002-US18064 W 20020605

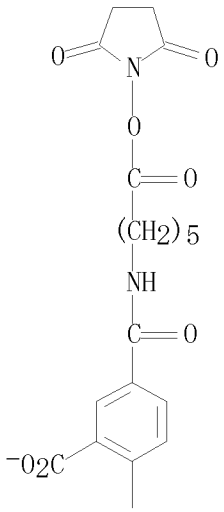
AB A microfluidic system is provided that includes a substrate, a first microchannel disposed in the substrate for providing a reactant to a reaction zone, a second microchannel disposed in the substrate, and a third microchannel disposed in the substrate, the third microchannel providing fluid communication between the first and second microchannels. The system also typically includes first and second electrodes, positioned at opposite ends of the second microchannel, for providing an elec. field within the second microchannel. In operation, when the reactant is in the reaction zone, a reaction product is produced having a net elec. charge different from the elec. charge of the reactant.

IT 380304-22-3
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(single mol. detection systems and methods)

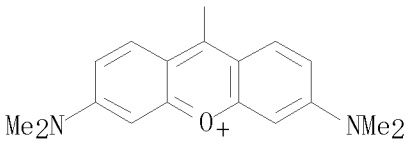
RN 380304-22-3 CAPLUS

CN Xanthylium, 9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



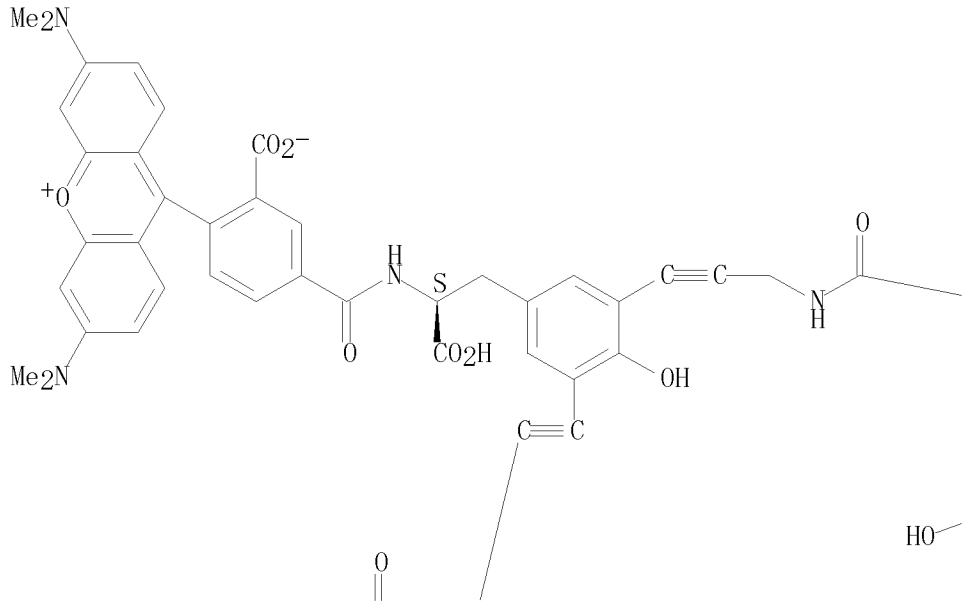
OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

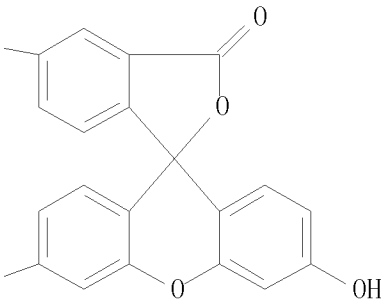
L7 ANSWER 40 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:714438 CAPLUS
DN 139:391807
TI Synthesis of Novel Tyrosinyl FRET Cassettes, Terminators, and Their Potential Use in DNA Sequencing
AU Sudhakar Rao, T.; Zhang, Weihong; Xiao, Haiguang; Flick, Parke; Kumar, Shiv; Nampalli, Satyam
CS Amersham Biosciences, Piscataway, NJ, 08855-1327, USA
SO Nucleosides, Nucleotides & Nucleic Acids (2003), 22(5-8), 1443-1445
CODEN: NNNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
AB Fluorescence resonance energy transfer (FRET) dye labeled cassettes and terminators with one or more donor dyes (fluorescein) and acceptor dye (rhodamine dyes) with benzofuran or tyrosine linker moieties were synthesized. These terminators were evaluated for their energy transfer and DNA sequencing potential using thermostable DNA polymerase.
IT 625380-77-0P 625380-78-1P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of novel tyrosine- and benzofuran-linked FRET cassettes and terminators for use in DNA sequencing)
RN 625380-77-0 CAPLUS
CN Xanthylium, 9-[4-[[[(1S)-2-[3,5-bis[3-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]-4-hydroxyphenyl]-1-carboxyethyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

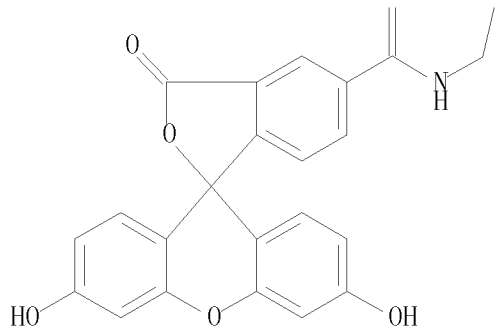
PAGE 1-A



PAGE 1-B



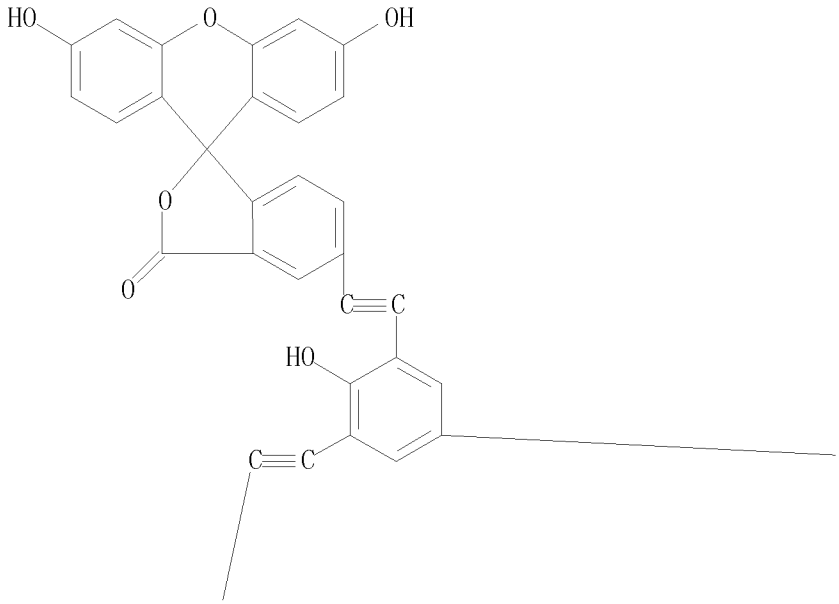
PAGE 2-A



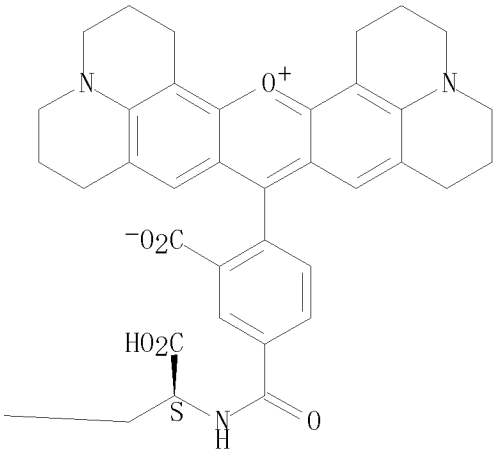
RN 625380-78-1 CAPLUS
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[4-[[[(1S)-2-[3,5-bis[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-4'-yl)ethynyl]-4-hydroxyphenyl]-1-carboxyethyl]amino]carbonyl]-2-carboxyphenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

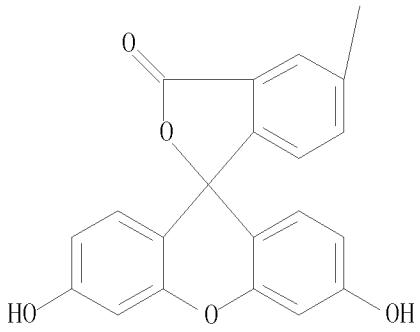
PAGE 1-A



PAGE 1-B



PAGE 2-A



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 41 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:42337 CAPLUS
DN 138:91395
TI Method for increasing hydrophilicity of fluorescent label compounds, and their use
IN Meltola, Niko; Soini, Aleksi
PA Arctic Diagnostics Oy, Finland
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003004569	A1	20030116	WO 2002-FI581	20020701
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002321334	A1	20030121	AU 2002-321334	20020701
	EP 1401962	A1	20040331	EP 2002-755031	20020701
	EP 1401962	B1	20060913		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2004533533	T	20041104	JP 2003-510732	20020701
	AT 339475	T	20061015	AT 2002-755031	20020701
	US 20040147728	A1	20040729	US 2003-482057	20031229
	US 7198958	B2	20070403		
PRAI	FI 2001-1438	A	20010702		
	US 2001-301831P	P	20010702		
	WO 2002-FI581	W	20020701		

OS MARPAT 138:91395
AB The invention relates to fluorescent label compds. in the form of dipyrromethene boron difluoride dye derivs. containing NHCH(CH2CH2Z)CONHY or NHCZCH2CH2CONHY groups, wherein Z is a reactive group and Y is a water-solubilizing moiety or CH2CH2SO3X, with X being a cation. The

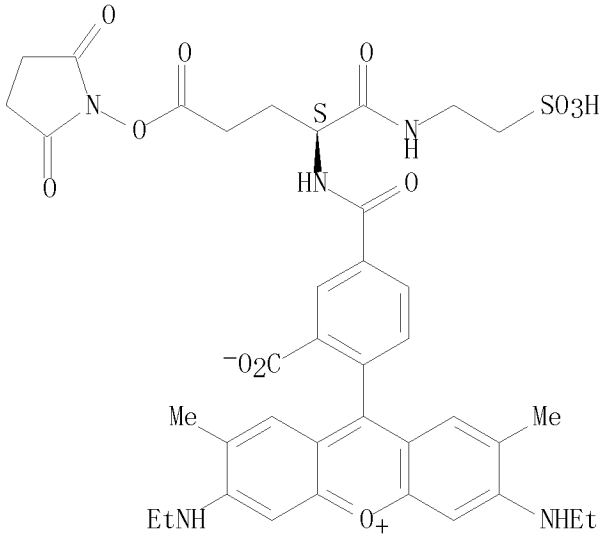
invention also relates to the use of the compds. in bioanal. assays and cytol. or histol. staining methods. The invention further relates to a method for increasing the hydrophilicity of fluorescent compds. In an example, a glutamic acid-taurine linker, HO2CCH2CH2CH(NH2)CONHCH2CH2SO3H, was prepared and condensed with 4,4-difluoro-5-(2-thienyl)-1,3-dimethyl-4-bora-3a,4a-diaza-s-indacene-2-propionic acid succinimidyl ester and the product was then re-esterified with N-hydroxysuccinimide to give a fluorescent compound suitable for labeling of mouse IgG anti-AFP.

IT 485397-10-2P
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dye; production of hydrophilic dipyrromethene boron difluoride fluorescent biomol. labeling dyes)

RN 485397-10-2 CAPLUS

CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxo-1-[[(2-sulfoethyl)amino]carbonyl]butyl]amino]carbonyl]phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

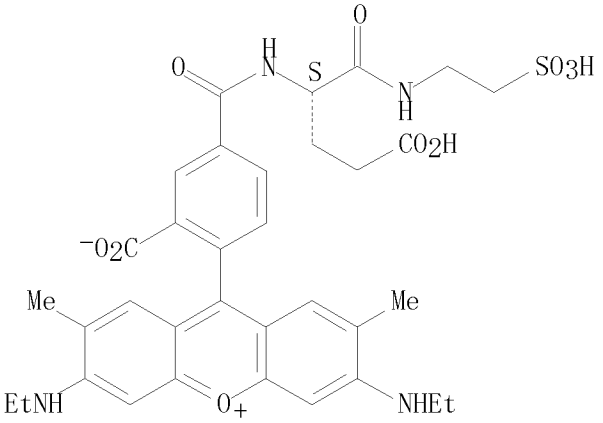


IT 485397-09-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; production of hydrophilic dipyrromethene boron difluoride fluorescent biomol. labeling dyes)

RN 485397-09-9 CAPLUS

CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-3-carboxy-1-[[(2-sulfoethyl)amino]carbonyl]propyl]amino]carbonyl]phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, inner salt (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 42 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:931744 CAPLUS
DN 137:370360
TI Preparation of fluorescence-marked cyclic peptolides with ionophore-chromopore pairs for selective determination of potassium ion
IN Andreae, Fritz; Uray, Georg
PA Austria
SO Austrian, 7 pp.
CODEN: AUXXAK
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	AT 407578	B	20010425	AT 1998-746	19980506
	AT 9800746	A	20000815		
PRAI	AT 1998-746		19980506		

AB The invention consists of fluorescence-marked cyclic peptolides (depsipeptides) and their use for optical measurement of potassium ion concentration in a sample. Binding of potassium ion to the cyclic peptolide results in a configurational change which alters one or more optical characteristics of the fluorophore label, such as its fluorescence depolarization. Thus, using smaller blocks consisting of Fmoc-L-Orn(TAMRA)-OH, Fmoc-D-Val-O-L-Lac-OH, Fmoc-L-Val-O-D-Hiv-OH, Fmoc-D-Glu(OBut)-O-L-Lac-OH, or Fmoc-L-Orn(Boc)-O-D-Hiv-OH [TAMRA = N-[9-[2-carboxy-6-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]-6-(dimethylamino)-3H-xanthen-3-ylidene]-N-methyl-methanaminiumchloride; Lac = lactic acid; Hiv = 2-hydroxyisovaleric acid], first a linear analog of valinomycin was synthesized using solid-phase peptide synthesis techniques. After release from the column, the linear analogs were cyclized, and, after deprotection, substituted with the desired fluorescent or chromophormatic side-chains, e.g., TAMRA, fluorescein, or Bodipy, to give, e.g., c[L-Orn(5'-fluoresceinyl)-D-Hiv-D-Val-L-Lac-L-Val-D-Hiv-D-Val-L-Lac-L-Val-D-Hiv-D-Val-L-Lac-](I). I was shown to selectively isolate K+ in preference to Na+.

IT 475578-35-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of in the preparation of cyclic depsipeptides for use

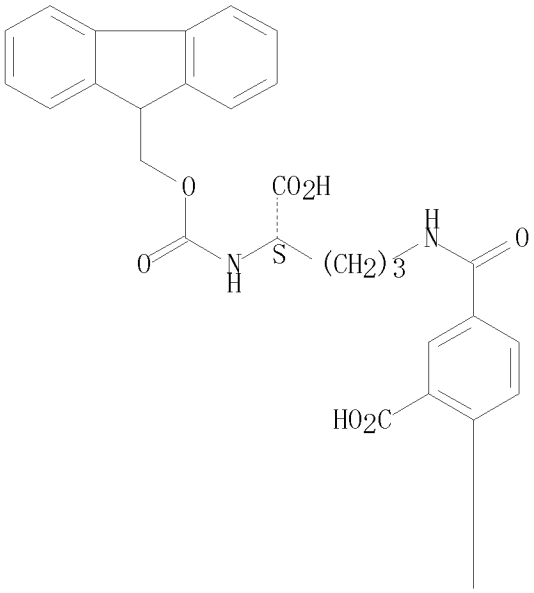
as K+ concentration anal. tools)

RN 475578-35-9 CAPLUS

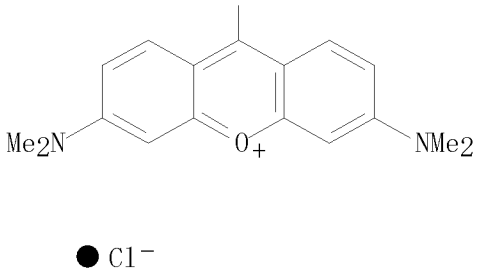
CN Xanthylium, 9-[2-carboxy-4-[[[(4S)-4-carboxy-4-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]butyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



● Cl^-

IT 475578-28-0

RL: RCT (Reactant); RACT (Reactant or reagent)

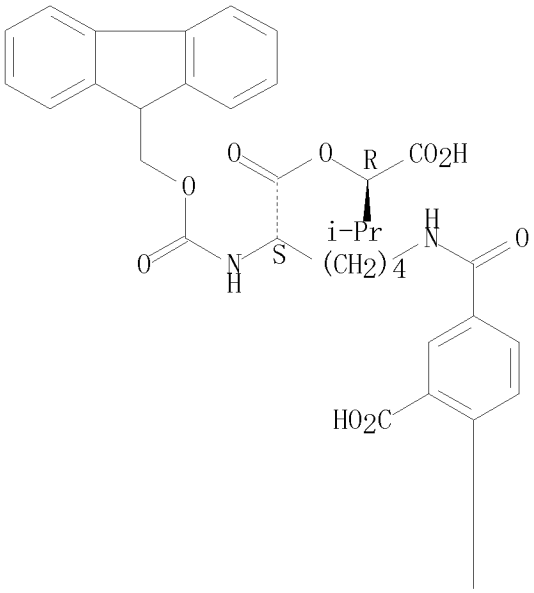
(reaction of in the preparation of cyclic depsipeptides for use as K+ concentration anal. tools)

RN 475578-28-0 CAPLUS

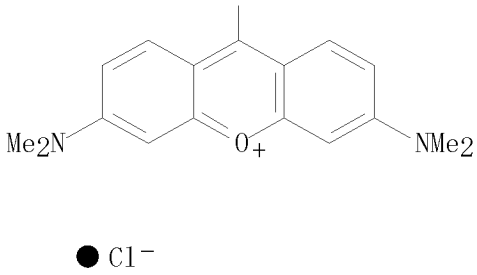
CN Xanthylium, 9-[2-carboxy-4-[[[(5S)-6-[(1R)-1-carboxy-2-methylpropoxy]-5-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



● Cl^-

L7 ANSWER 43 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:736225 CAPLUS
DN 137:262960
TI Preparation of spiro-cyclic β-amino acid derivatives as inhibitors of matrix metalloproteinases and TNF-α converting enzyme (TACE)
IN Ott, Gregory R.; Chen, Xiaotao; Duan, Jingwu; Voss, Matthew E.
PA Bristol-Myers Squibb Company, USA
SO PCT Int. Appl., 187 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002074738	A2	20020926	WO 2002-US7652	20020312
	WO 2002074738	A3	20030403		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2439539	A1	20020926	CA 2002-2439539	20020312
AU 2002258507	A1	20021003	AU 2002-258507	20020312
US 20030087882	A1	20030508	US 2002-96804	20020312
US 6720329	B2	20040413		
EP 1373199	A2	20040102	EP 2002-728458	20020312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 20040132693	A1	20040708	US 2003-741326	20031218
US 6962938	B2	20051108		
PRAI US 2001-275898P	P	20010315		
US 2002-96804	A3	20020312		
WO 2002-US7652	W	20020312		

OS MARPAT 137:262960

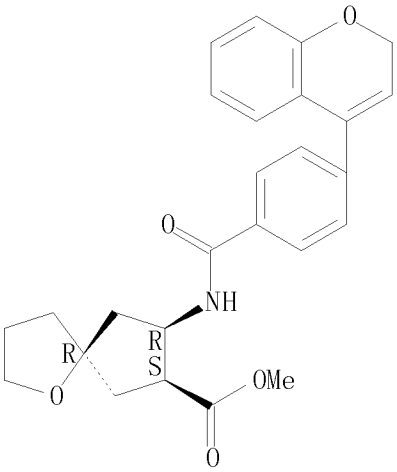
AB Novel spiro-cyclic β-amino acid derivs. C-B-NR1CO-Z-Ua-Xa-Ya-Za [C-B represents a spiro-cyclic ring system, where rings B and C are 3-13 membered carbocycles or heterocycles; ring B is bonded to NR1 via ACR2aCR2b-; A = alkanoyl, CO2H or ester, CH2CO2H, CONHOH, SH, CH2SH, etc.; R2a = H, alkyl, OH, alkoxy, an amino group, S(O)p (p = 0-2), etc.; R2b = H, alkyl; R1 = H, alkyl, Ph, PhCH2; Z is absent or is a carbocycle or heterocycle; Ua is absent or is O, NH, alkylimino, CO, CO2, O2C, CONH, S(O)p, etc.; Xa is absent or is alkylene, alkenylene, or alkynylene; Ya is absent or is O, NH, alkylimino, S(O)p, CO; Za = H, carbocycle, or heterocycle] or their pharmaceutically-acceptable salts were prepared as matrix metalloproteinases (MMP), TNF-α converting enzyme (TACE), and/or aggrecanase inhibitors. Thus, (7S,8R)-N-hydroxy-8-[[4-[(2-methyl-4-quinolinyl)methoxy]benzoyl]amino]-1,4-dioxaspiro[4.4]nonane-7-carboxamide was prepared by a multistep synthesis starting from (1S,2R)-1-Me cis-1,2,3,6-tetrahydrophthalate. The latter underwent sequential esterification with benzyl alc., oxidative ring opening with KMnO4, and recyclization with Ac2O/NaOAc to yield intermediate benzyl Me (1S,2R)-4-oxo-1,2-cyclopentanedicarboxylate.

IT 461665-57-6P 461665-58-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of spiro-cyclic β-amino acid derivs. as inhibitors of matrix metalloproteinases and TNF-α converting enzyme (TACE))

RN 461665-57-6 CAPLUS

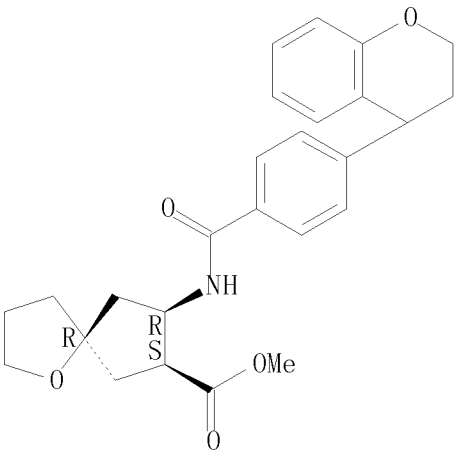
CN 1-Oxaspiro[4.4]nonane-7-carboxylic acid, 8-[[4-(2H-1-benzopyran-4-yl)benzoyl]amino]-, methyl ester, (5R,7S,8R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 461665-58-7 CAPLUS
CN 1-Oxaspiro[4.4]nonane-7-carboxylic acid,
8-[[4-(3,4-dihydro-2H-1-benzopyran-4-yl)benzoyl]amino]-, methyl ester,
(5R,7S,8R)- (CA INDEX NAME)

Absolute stereochemistry.

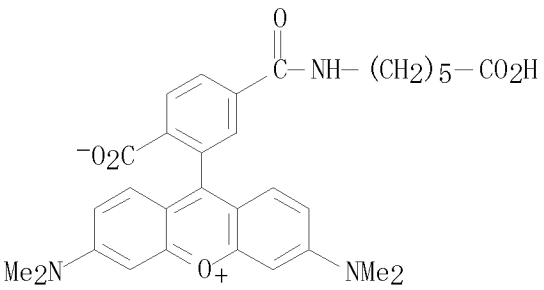


OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 44 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:695720 CAPLUS
DN 137:211908
TI Platinum compounds for nucleic acid labeling
IN Braman, Jeffrey Carl; Huang, Haoqiang
PA Stratagene, USA
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002069898	A2	20020912	WO 2002-US6410	20020301

WO 2002069898 A3 20030605
W: CA
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR
US 20020165369 A1 20021107 US 2002-86515 20020301
US 6825330 B2 20041130
EP 1373572 A2 20040102 EP 2002-725061 20020301
EP 1373572 B1 20060726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR
AT 334230 T 20060815 AT 2002-725061 20020301
EP 1705254 A2 20060927 EP 2006-75229 20020301
EP 1705254 A3 20070221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR
PRAI US 2001-272921P P 20010302
EP 2002-725061 A3 20020301
WO 2002-US6410 W 20020301
OS MARPAT 137:211908
AB The invention relates to novel platinum-based compds. for labeling biomols. Platinum based labeling compds. according to the invention irreversibly attach to a target biomol. via coordination of a platinum (II) metal center with N or S atoms on the target biomol. The invention relates to the novel compds. themselves, methods of making the platinum-based labeling compds., probes labeled with such compds., methods of making such labeled probes, and kits comprising the novel platinum-based labeling compds. and/or probes labeled with them. The invention also relates to methods of using probes labeled with platinum-based labeling compds. of the invention, particularly array and microarray hybridization methods. Thus, platinum (Cy3-cyclohexanediamine) dinitrate was synthesized and shown to label a synthetic 73-residue oligonucleotide with 90-95% yield by reaction at 80° for 30 min using a two-fold excess of platinum labeling compound
IT 455253-07-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(platinum compds. for nucleic acid labeling)
RN 455253-07-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[(5-carboxypentyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)



OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 45 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:594968 CAPLUS
DN 137:151788

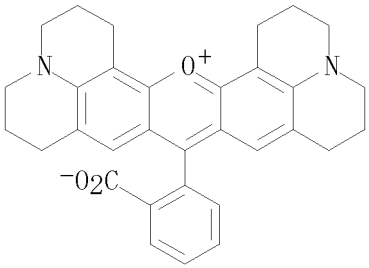
TI Homo-doubly labeled compositions for the detection of enzyme activity in biological samples
IN Packard, Beverly S.; Komoriya, Akira
PA Oncoimmunin, Inc., USA
SO PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 6

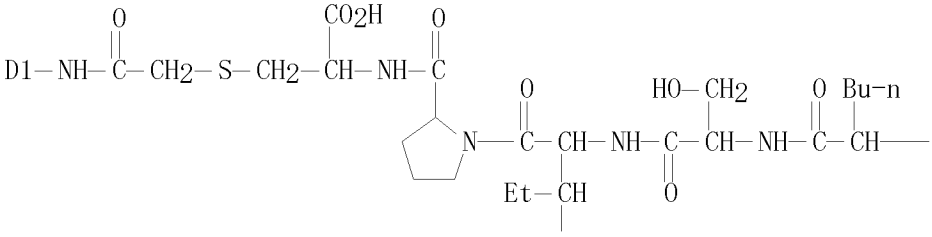
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002061038	A2	20020808	WO 2001-US49781	20011221
	WO 2002061038	A9	20021128		
	WO 2002061038	A3	20030313		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 20030207264	A1	20031106	US 2000-747287	20001222
	US 6893868	B2	20050517		
	CA 2432973	A1	20020808	CA 2001-2432973	20011221
	AU 2002249837	A1	20020812	AU 2002-249837	20011221
	EP 1356084	A2	20031029	EP 2001-998079	20011221
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	US 2000-747287	A	20001222		
	US 1997-802981	A2	19970220		
	US 1999-394019	A2	19990910		
	WO 2000-US24882	A2	20000911		
	WO 2001-US49781	W	20011221		

AB The present invention provides for novel reagents whose fluorescence or absorption spectra change upon cleavage or a change in conformation of a backbone. Fluorescence or absorption spectra of these indicators change in the presence of active proteases, nucleases, glycosidases, and the like. The reagents comprise a backbone (e.g. nucleic acid, polypeptide, etc.) joining two chromophores (e.g. fluorophores) of the same species whereby the chromophores form an H-dimer resulting in quenching of the fluorescence of the fluorophores or a change in absorption spectra of the chromophores. When the backbone is cleaved or changes conformation, the chromophores are separated, no longer forming an H-type dimer, and are de-quenched thereby providing a detectable signal. The use of a single chromophore rather than an "acceptor-donor" fluorescence resonance energy transfer system offers synthesis and performance advantages.

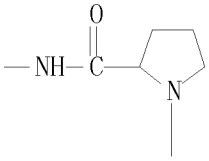
IT 212268-88-7
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (fluorogenic protease indicator; homo-doubly labeled compns. for detection of enzyme activity in biol. samples)
RN 212268-88-7 CAPLUS
CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B



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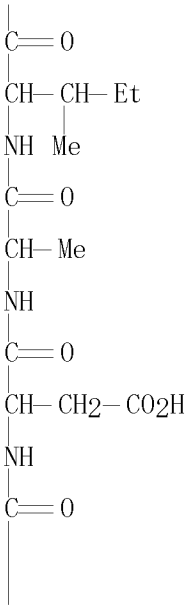
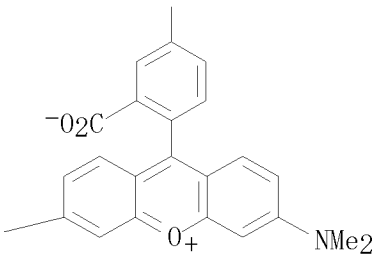
PAGE 2-B



PAGE 3-A

Me_2N

PAGE 3-B

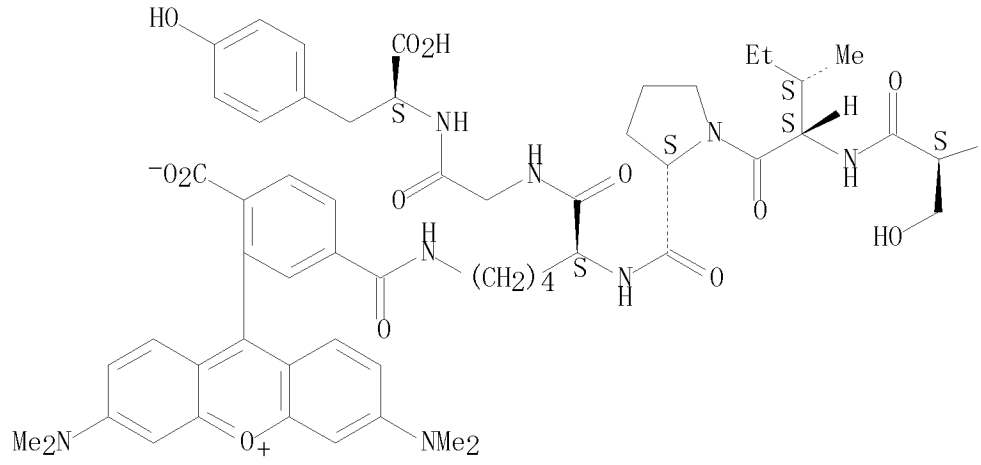


IT 212207-37-9 212268-91-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(homo-doubly labeled compns. for detection of enzyme activity in biol. samples)
RN 212207-37-9 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-

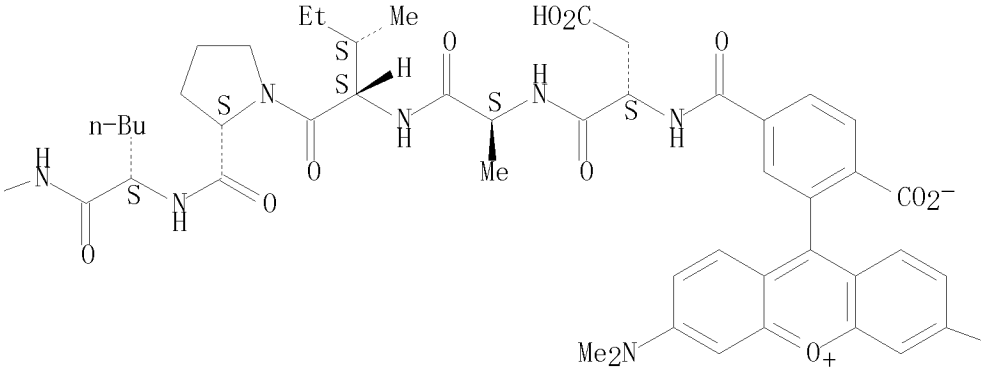
carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

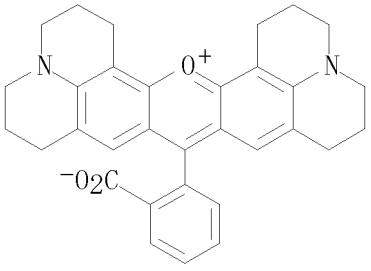


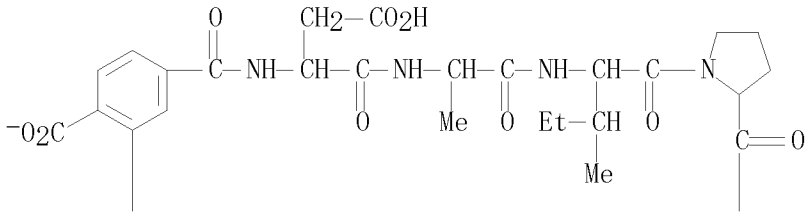
PAGE 1-C

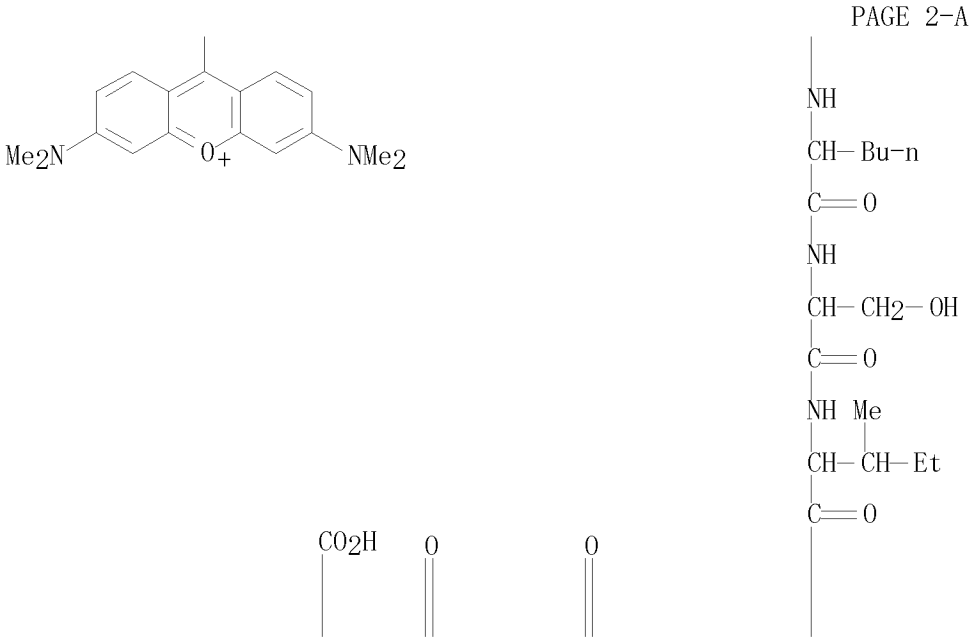
NMe2

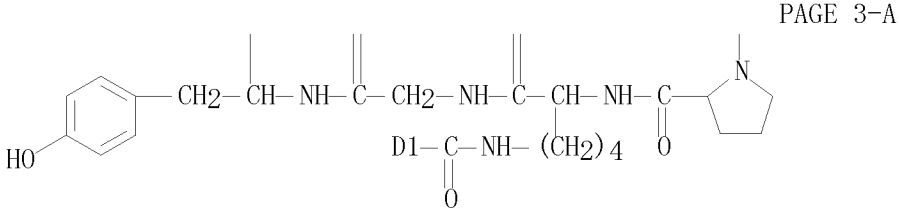
RN 212268-91-2 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A









RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 46 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:575271 CAPLUS
DN 137:136908
TI Methods and means for detecting enzymatic cleavage and linkage reactions
IN Lopez-Calle, Eloisa; Fries, Joachim; Jungmann, Joern
PA Evotec OAI Ag, Germany
SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002059352	A2	20020801	WO 2002-EP845	20020128
	WO 2002059352	A3	20031106		

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              KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
              GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
              GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002246065          A1    20020806    AU 2002-246065         20020128
     EP 1385982             A2    20040204    EP 2002-714122         20020128
     EP 1385982             B1    20081022
          R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     AT 412062              T     20081115    AT 2002-714122         20020128
     US 20040241782         A1    20041202    US 2004-466552         20040107
     US 20070122863         A1    20070531    US 2006-432768         20060512
     US 7425425             B2    20080916
PRAI EP 2001-101869         A     20010126
     WO 2002-EP845          W     20020128
     US 2004-466552         A1    20040107
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AB The invention relates to methods and means for detecting enzyme-catalyzed cleavage and linkage reactions. The invention provides modular chemical compds., which act as substrates for the enzymes concerned. The reaction products are detected using methods with a sensitivity to molar mass. Thus a Caspase 3-specific substrate was synthesized; first the substrate peptide was prepared on a solid phase and coupled to 5-carboxytetramethylrhodamine succinimide ester. The product was modified with maleimide and conjugated to a 5'-thio modified double stranded DNA.

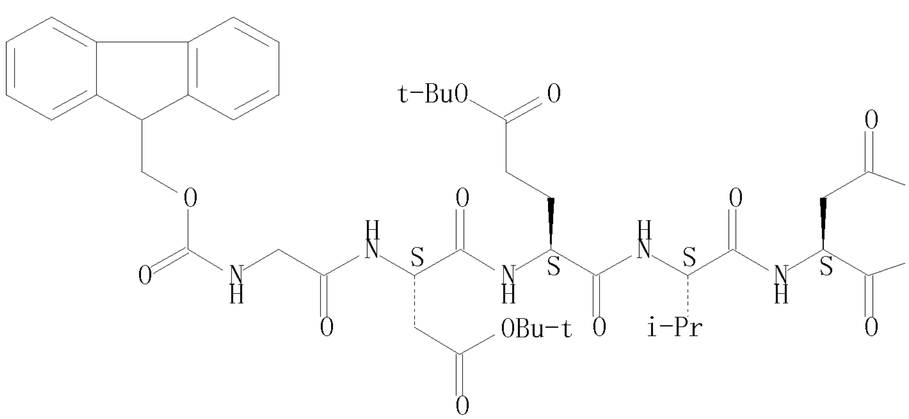
IT 444196-91-2P   444196-94-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods and means for detecting enzymic cleavage and linkage reactions)

RN 444196-91-2 CAPLUS

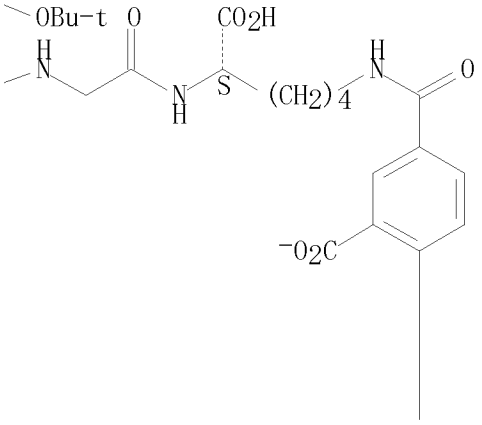
CN L-Lysine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]glycyl-L-α-aspartyl-L-α-glutamyl-L-valyl-L-α-aspartylglycyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, 2,3,5-tris(1,1-dimethylethyl) ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

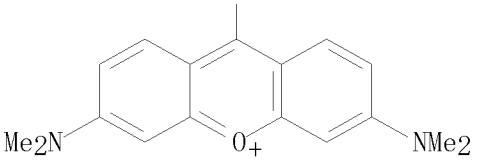
PAGE 1-A



PAGE 1-B



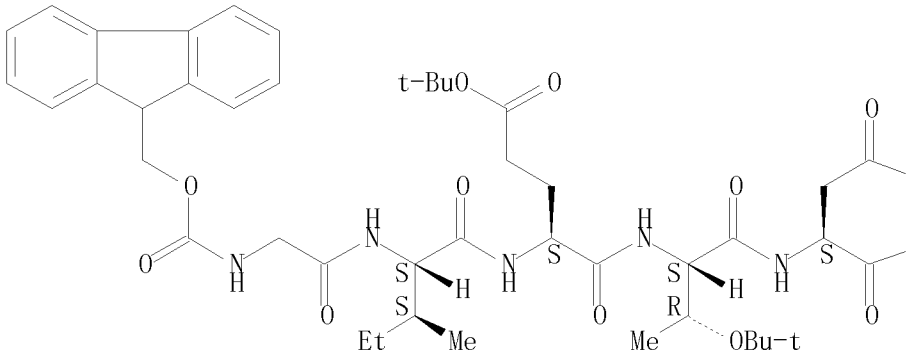
PAGE 2-B



RN 444196-94-5 CAPLUS
CN L-Lysine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]glycyl-L-isoleucyl-L-α-glutamyl-O-(1,1-dimethylethyl)-L-threonyl-L-α-aspartylglycyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, 3,5-bis(1,1-dimethylethyl) ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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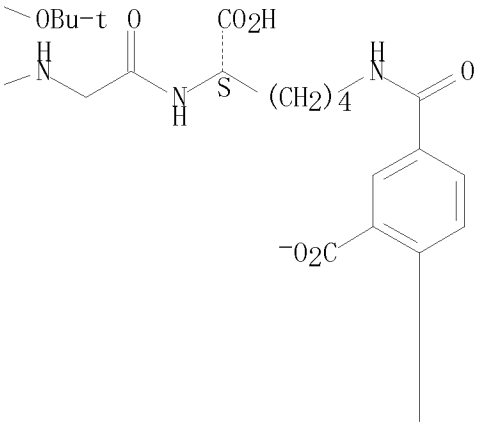
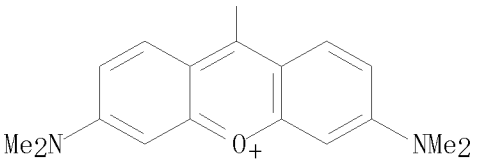


PAGE 2-B



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 47 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:525317 CAPLUS
DN 137:223582
TI Fluorescence quenching and lifetime distributions of single molecules on glass surfaces
AU Lee, Minyung; Kim, Jiho; Tang, Jianyong; Hochstrasser, Robin M.
CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104-6323, USA
SO Chemical Physics Letters (2002), 359(5,6), 412-419
CODEN: CHPLBC; ISSN: 0009-2614
PB Elsevier Science B.V.
DT Journal
LA English
AB The fluorescence lifetimes of tetra-Me rhodamine mols., attached covalently to glass surfaces while solvated in ethylene glycol, were measured in the absence and presence of energy transfer acceptors in solution Fluorescence quenching by either the glass surface or acceptor mols. generates nonexponential decays in bulk samples. By means of single-mol. fluorescence lifetime microscopy, the corresponding lifetime distributions are obtained and are quasi-continuous. The moments of the survival times associated with the best stretched exponential fits to the bulk data are compared with those calculated from the lifetime distributions, and the

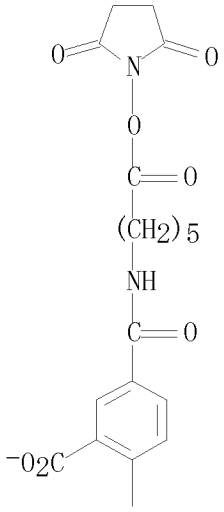
agreement is not perfect with the stretched exponential yielding a distribution that is too asym.

IT 380304-22-3D, solid solution with 5-isomer reaction products with aminopropyldimethoxysilane and glass 457075-12-6D, solid solution with 6-isomer reaction products with aminopropyldimethoxysilane and glass
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(fluorescence quenching and lifetime distributions of single mols. on glass surfaces)

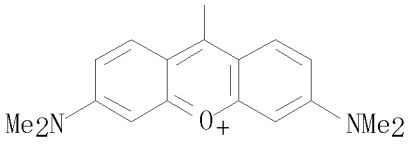
RN 380304-22-3 CAPLUS

CN Xanthylium, 9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

PAGE 1-A

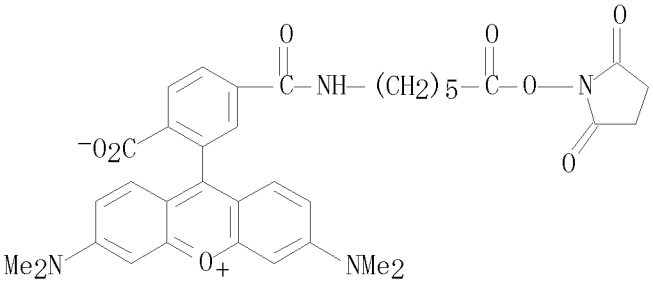


PAGE 2-A



RN 457075-12-6 CAPLUS

CN Xanthylium, 9-[2-carboxy-5-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

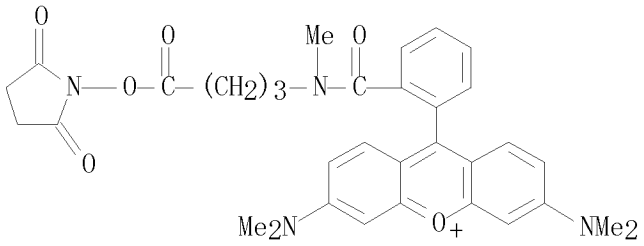


OSC.G 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 48 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:447100 CAPLUS
DN 137:17446
TI Rhodamine fluorophore useful as labeling reagent
IN Quiarelo, Ronald H.; Cheon, Liu Win; Yokobata, Kathy E.
PA Scinopharm Singapore Pte Ltd., Singapore
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002168867	A	20020614	JP 2000-355808	20001122
	JP 3390161	B2	20030324		
PRAI	JP 2000-355808		20001122		

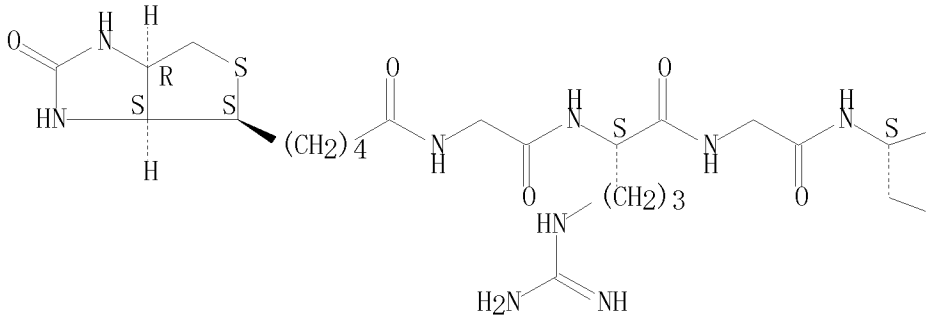
AB A Rhodamine fluorophore and its composition useful as a labeling reagent is provided, with which a substance such as amino acid, peptide, protein, nucleotide and nucleic acid is inexpensively and conveniently labeled in a stable state without lowering an efficiency. A fluorescent substance based on Rhodamine is derivatized, which forms a label-bound body capable of generating fluorescence upon irradiating light with an appropriate wavelength. A particularly preferable example is a certain single isomer of Rhodamine phosphoramidite. With these Rhodamine phosphoramidites, the efficiency in synthesizing a Rhodmine-labeled compound by a solid phase method is stimulated. In this example of label-bound body, the conversion to non-fluorescent lactam is prevented due to the possession of a sufficiently substituted amide linkage derived from 3-carboxylic acid.
IT 435304-72-6P
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(Rhodamine fluorophore useful as labeling reagent)
RN 435304-72-6 CAPLUS
CN Xanthylium, 3,6-bis(dimethylamino)-9-[2-[[[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]methylamino]carbonyl]phenyl]- (CA INDEX NAME)



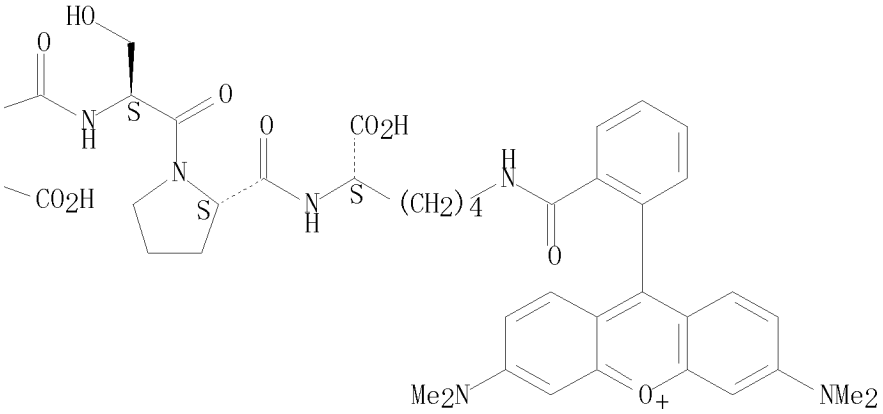
L7 ANSWER 49 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:156064 CAPLUS
DN 136:306357
TI Micropatterns of a cell-adhesive peptide on an amphiphilic comb polymer film
AU Hyun, Jinho; Ma, Hongwei; Banerjee, Pallab; Cole, Janet; Gonsalves, Kenneth; Chilkoti, Ashutosh
CS Department of Biomedical Engineering, Duke University, Durham, NC, 27708-0281, USA
SO Langmuir (2002), 18(8), 2975-2979
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB We report in this paper a generic method to modify the surfaces of common polymeric biomaterials that enables spatially resolved attachment and growth of mammalian cells in a biol. relevant milieu. We demonstrate that an amphiphilic comb polymer presenting short oligoethylene glycol side chains can be coated onto a number of different polymeric biomaterials, namely polystyrene, poly(Me methacrylate), and poly(ethylene terephthalate) from a methanol/water mixture The comb polymer film is stable in water and presents reactive COOH groups at the oligoethylene glycol chain ends, thereby permitting the surface of the comb polymer to be patterned with a cell adhesive, arg-gly-asp peptide. The micropatterned surfaces spatially confine the attachment and growth of fibroblasts for .apprx.24 h in 10% serum to the patterned regions.
IT 410078-20-5
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(micropatterns of cell-adhesive peptide on amphiphilic comb polymer film)
RN 410078-20-5 CAPLUS
CN L-Lysine, N-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]glycyl-L-arginylglycyl-L-α-aspartyl-L-seryl-L-prolyl-N6-[2-[3,6-bis(dimethylamino)xanthylium-9-yl]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



OSC.G 51 THERE ARE 51 CAPLUS RECORDS THAT CITE THIS RECORD (51 CITINGS)
RE.CNT 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 50 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:904559 CAPLUS
DN 136:32660
TI Charge-switch nucleotides for use in nucleic acid sequencing
IN Williams, John G. K.; Bashford, Gregory R.; Chen, Jiyan; Draney, Dan; Narayanan, Nara; Reynolds, Bambi L.; Sheaff, Pamela
PA Li-Cor, Inc., USA
SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001094609	A1	20011213	WO 2001-US18699	20010607
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				

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US 20020039738 A1 20020404 US 2001-876375 20010606
US 6869764 B2 20050322
US 20020042071 A1 20020411 US 2001-876374 20010606
US 6936702 B2 20050830
CA 2412567 A1 20011213 CA 2001-2412567 20010607
EP 1287154 A1 20030305 EP 2001-946213 20010607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004516810 T 20040610 JP 2002-502149 20010607
US 20020168678 A1 20021114 US 2002-146400 20020514
WO 2002099406 A2 20021212 WO 2002-US18064 20020605
WO 2002099406 A3 20030206
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
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AU 2002318334 A1 20021216 AU 2002-318334 20020605
US 20060063173 A1 20060323 US 2005-154419 20050615
US 20080153095 A1 20080626 US 2007-925722 20071026
US 20080206764 A1 20080828 US 2007-925724 20071026
PRAI US 2000-209896P P 20000607
US 2001-286238P P 20010424
US 2001-876374 A 20010606
US 2001-876375 A 20010606
WO 2001-US18699 W 20010607
US 2002-146400 A 20020514
WO 2002-US18064 W 20020605
US 2005-154419 A1 20050615

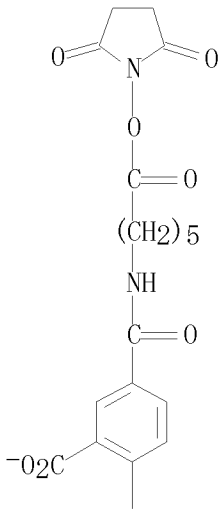
AB The present invention provides compds., methods and systems for sequencing nucleic acid using single mol. detection. Using labeled nucleoside triphosphates that exhibit charge-switching behavior, single-mol. DNA sequencing in a microchannel sorting system is realized. In operation, sequencing products are detected enabling real-time sequencing as successive detectable moieties flow through a detection channel. By elec. sorting charged mols., the cleaved product mols. are detected in isolation without interference from unincorporated nucleoside triphosphate derivs. and without illuminating the polymerase-DNA complex. Thus, a method for determining the charge on a charge-switch nucleotide of the invention is described. A charge-switch nucleotide comprising TTP conjugated via a doubly pos. charged linker to TAMRA was synthesized and used in a microchannel device in DNA sequencing.

IT 380304-22-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(charge-switch nucleotides for use in nucleic acid sequencing)

RN 380304-22-3 CAPLUS

CN Xanthylium, 9-[2-carboxy-4-[[[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

PAGE 1-A



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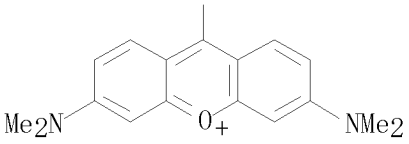


OSC.G 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (26 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 51 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:878313 CAPLUS
DN 136:163154
TI Didehydrogeranylgeranyl (ΔΔGG): A fluorescent probe for protein prenylation
AU Liu, Xiao-hui; Prestwich, Glenn D.
CS Department of Medicinal Chemistry and the Center for Cell Signaling, The University of Utah, Salt Lake City, UT, 84112-5820, USA
SO Journal of the American Chemical Society (2002), 124(1), 20-21
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB The first intrinsically fluorescent analog of geranylgeraniol, (2E,6E,8E,10E,12E,14E)-geranylgeraniol (all-trans-ΔΔGGOH) has been synthesized stereoselectively and shown to substitute for the geranylgeranyl (GG) moiety in prenyltransferase reactions and in protein-ligand binding assays. All-trans-ΔΔGGOH showed blue fluorescence in methanol, with λex = 310 nm and λem = 410 nm (ε310 = 2.4 + 104 M-1 cm-1), but was only weakly fluorescent in aqueous solution The prenyltransferase efficiency for the diphosphate analog

ΔΔGGPP as a substrate for yeast protein geranylgeranyltransferase (PGGTase-I) was 60% relative to that for GGPP. The binding of ΔΔGG-AcCysMe to the recombinant Rho GTPase dissociation inhibitor (RhoGDI) had a KD of 15.1 μM, 6-fold lower than the affinity of GG-AcCysMe. Thus, the ΔΔGG moiety is a novel fluorophore suitable for studying the interaction and subcellular localization of prenylated small GTPase proteins in signaling complexes.

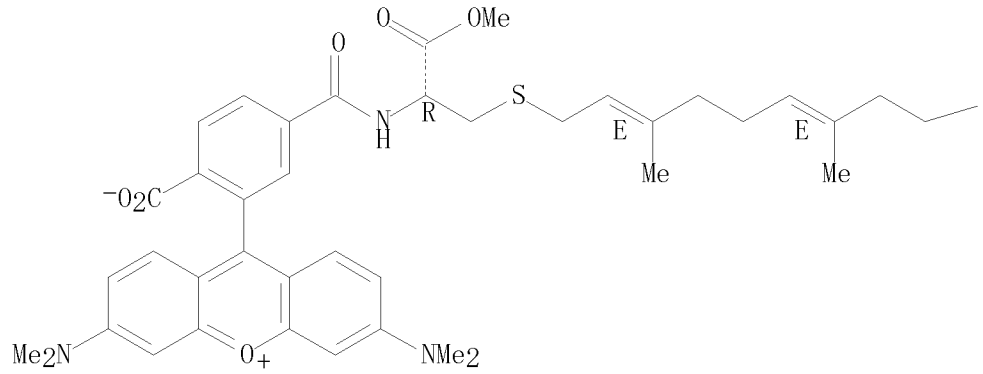
IT 257299-66-4P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(RhoGDI ligand; preparation and protein geranylgeranyltransferase substrate and Rho GTPase dissociation inhibitor RhoGDI ligand activity of didehydrogeranylgeranyl fluorescent probes)

RN 257299-66-4 CAPLUS

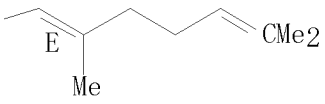
CN Xanthylium, 9-[2-carboxy-5-[[[(1R)-2-methoxy-2-oxo-1-[[[(2E,6E,10E)-3,7,11,15-tetramethyl-2,6,10,14-hexadecatetraen-1-yl]thio]methyl]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



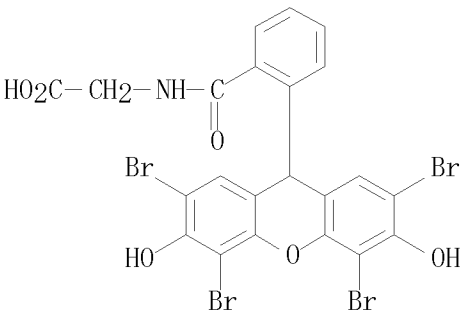
PAGE 1-B



OSC.G 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 52 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:831676 CAPLUS
DN 136:263370
TI Synthesis and monitored selection of nucleotide surrogates for binding T:A base pairs in homopurine-homopyrimidine DNA triple helices
AU Mokhir, Andriy A.; Connors, William H.; Richert, Clemens

CS Department of Chemistry, University of Constance, Konstanz, D-78457, Germany
SO Nucleic Acids Research (2001), 29(17), 3674-3684
CODEN: NARHAD; ISSN: 0305-1048
PB Oxford University Press
DT Journal
LA English
OS CASREACT 136:263370
AB A total of 16 oligodeoxyribonucleotides of general sequence 5'-TCTTCTZTCTTTCT-3', where Z denotes an N-acyl-N-(2-hydroxyethyl)glycine residue, were prepared via solid phase synthesis. The ability of these oligonucleotides to form triplexes with the duplex 5'-AGAAGATAGAAAGA-HEG-TCTTTCTATCTTCT-3', where HEG is a hexaethylene glycol linker, was tested. In these triplexes, an 'interrupting' T:A base pair faces the Z residue in the third strand. Among the acyl moieties of Z tested, an anthraquinone carboxylic acid residue linked via a glycinyl group gave the most stable triplex, whose UV m.p. was 8.4 ° Chigher than that of the triplex with 5'-TCTTCTGTCTTTCT-3' as the third strand. The results from exploratory nuclease selection expts. suggest that a combinatorial search for strands capable of recognizing mixed sequences by triple helix formation is feasible.
IT 403483-08-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and monitored selection of nucleotide surrogates for binding T:A base pairs in homopurine-homopyrimidine DNA triple helixes)
RN 403483-08-9 CAPLUS
CN Glycine, N-[2-(2,4,5,7-tetrabromo-3,6-dihydroxy-9H-xanthen-9-yl)benzoyl]- (CA INDEX NAME)



OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 53 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:785268 CAPLUS
DN 137:30106
TI Validation of flow cytometric competitive binding protocols and characterization of fluorescently labeled ligands
AU Waller, Anna; Pipkorn, David; Sutton, Karyn L.; Linderman, Jennifer J.; Omann, Geneva M.
CS Department of Chemical Engineering, University of Michigan, Ann Arbor, MI, USA
SO Cytometry (2001), 45(2), 102-114
CODEN: CYTODQ; ISSN: 0196-4763
PB Wiley-Liss, Inc.
DT Journal
LA English

AB Fluorescently labeled ligands and flow cytometric methods allow quantification of receptor-ligand binding. Such methods require calibration of the fluorescence of bound ligands. Moreover, binding of unlabeled ligands can be calculated based on their abilities to compete with a labeled ligand. In this study, calibration parameters were determined for six fluorescently labeled N-formyl peptides that bind to receptors on neutrophils. Two of these ligands were then used to develop and validate competitive binding protocols for determining binding consts. of unlabeled ligands. Spectrofluorometric and flow cytometric methods for converting relative flow cytometric intensities to number of bound ligand/cell were extended to include peptides labeled with fluorescein, Bodipy, and tetramethylrhodamine. The validity of flow cytometric competitive binding protocols was tested using two ligands with different fluorescent properties that allowed determination of rate consts. both directly and competitively for one ligand, CHO-NLFNYK-tetramethylrhodamine. Calibration parameters were determined for six fluorescently-labeled N-formyl peptides. Equilibrium dissociation consts. for these ligands varied over two orders of magnitude and depended upon the peptide sequence and the mol. structure of the fluorescent tag. Kinetic rate consts. for CHO-NLFNYK-tetramethylrhodamine determined directly or in competition with CHO-NLFNYK-fluorescein were statistically identical. Combination of spectrofluorometric and flow cytometric methods allows convenient calcn. of calibration parameters for a series of fluorescent ligands that bind to the same receptor site. Competitive binding protocols have been independently validated.

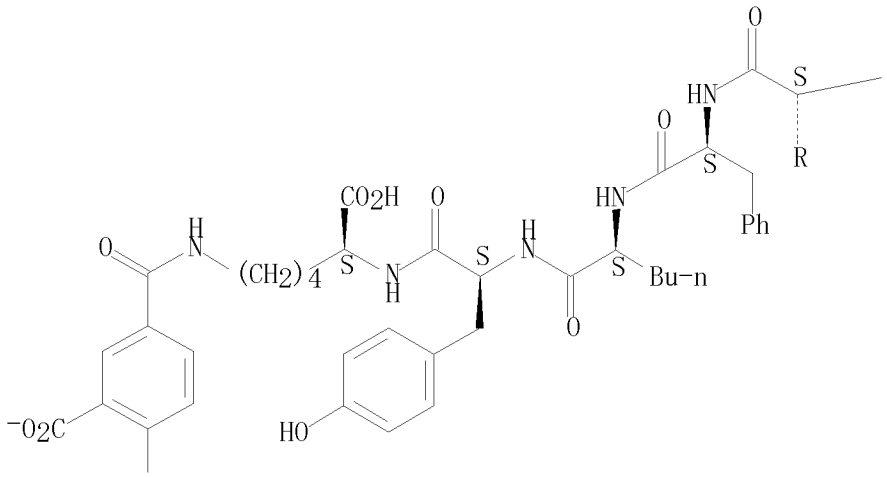
IT 438052-63-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(validation of flow cytometric competitive binding protocols and characterization of fluorescently labeled ligands)

RN 438052-63-2 CAPLUS

CN L-Lysine, N-formyl-L-norleucyl-L-leucyl-L-phenylalanyl-L-norleucyl-L-tyrosyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

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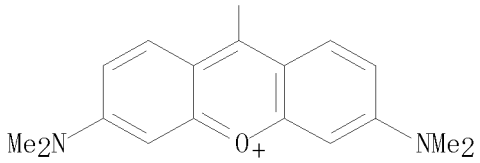
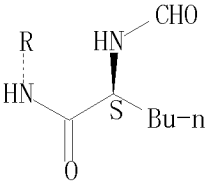
PAGE 2-A





OSC.G 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 54 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:674879 CAPLUS
DN 136:66474
TI Fluorescence resonance energy transfer dye nucleotide terminators: a new synthetic approach for high-throughout DNA sequencing
AU Nampalli, Satyam; Khot, Mahesh; Nelson, John R.; Flick, Parke K.; Fuller, Carl W.; Kumar, Shiv
CS Amersham Pharmacia Biotech, Piscataway, NJ, 08855, USA
SO Nucleosides, Nucleotides & Nucleic Acids (2001), 20(4-7), 361-367
CODEN: NNNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
AB Fluorescence resonance energy transfer (FRET) based dye-nucleotide terminators were designed, synthesized, and formulated with Thermo Sequenase II DNA polymerase into a robust kit for high throughput DNA sequencing. The key energy transfer (ET) rigid and linear linker, required for the syntheses of energy transfer cassettes was synthesized via Heck coupling reaction on t-Boc-L-4-iodo-phenylalanine with N-TFA-propargylamine.
IT 260397-87-3P 383372-69-8P 383372-72-3P
383372-75-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fluorescence resonance energy transfer dye nucleotide terminators approach for high-throughout DNA sequencing)
RN 260397-87-3 CAPLUS

CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propynyl]phenyl]ethyl]amino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

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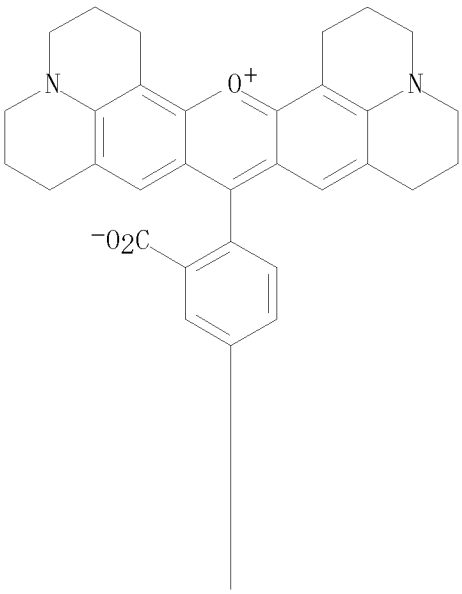
PAGE 1-B



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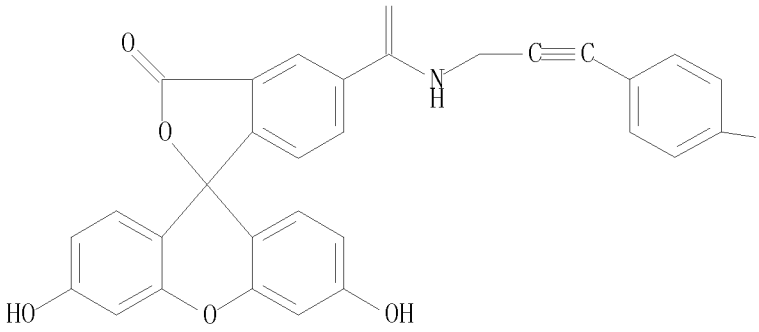

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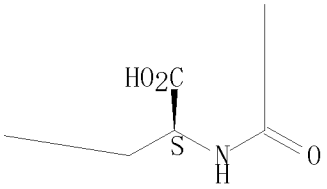
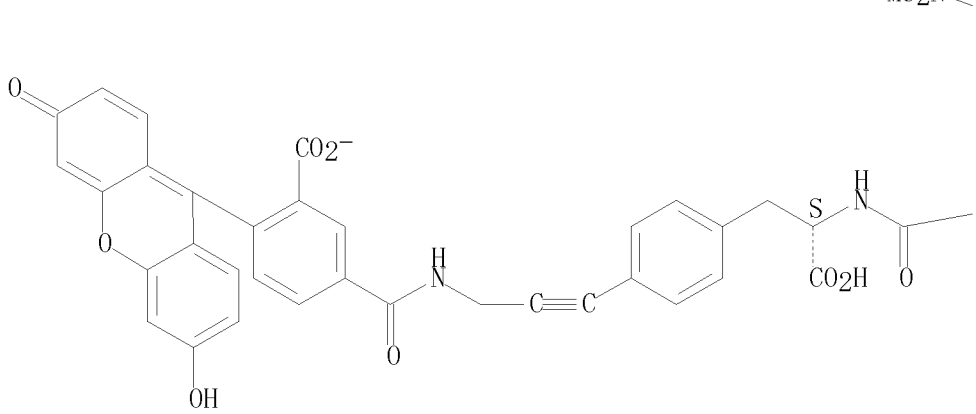


RN 383372-69-8 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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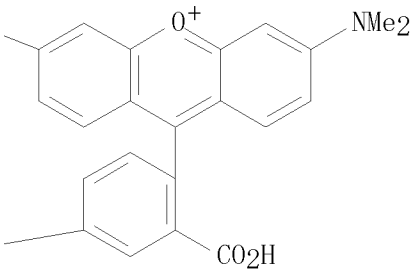
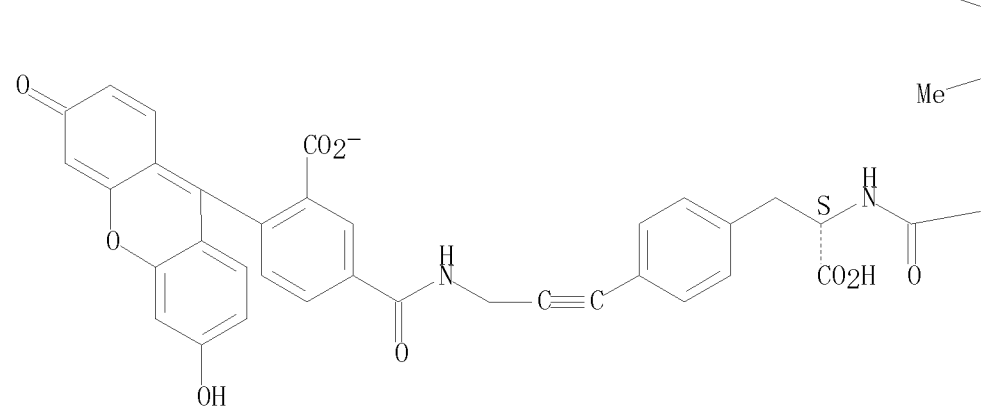


RN 383372-72-3 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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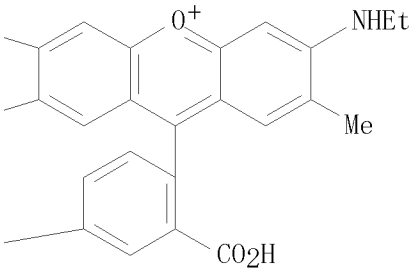
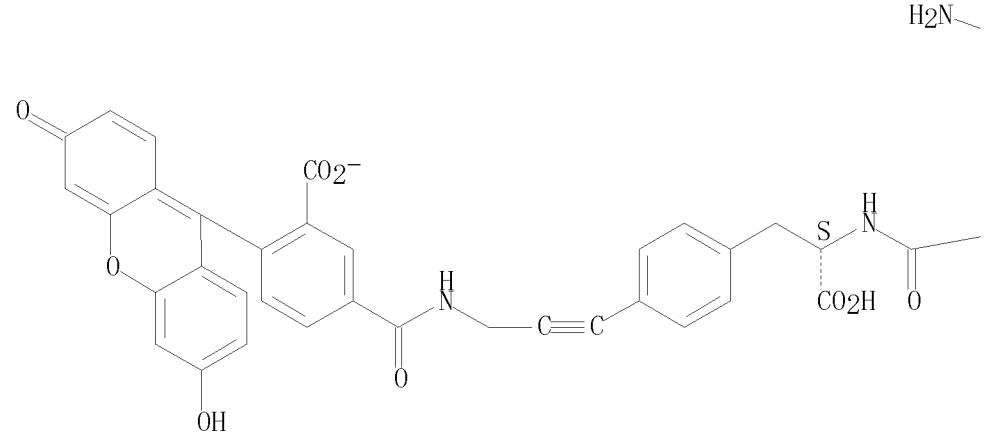


RN 383372-75-6 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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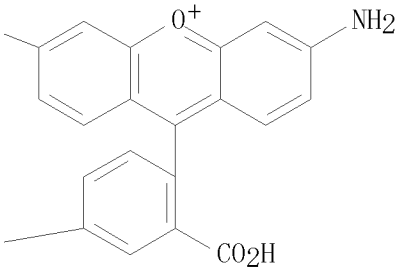


OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

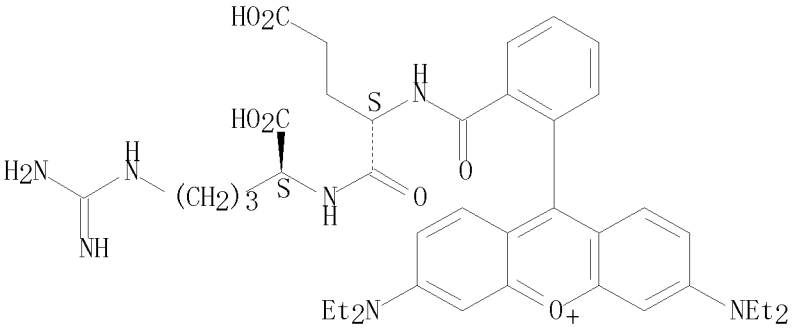
L7 ANSWER 55 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:530355 CAPLUS
DN 135:223594
TI Fluorescence spectra of some Nα-(rhodaminyl B)-L-amino acids
AU Janmey, P. A.; Vegners, R.; Rosenthal, G.; Maurops, G.; Lipsbergs, I.
CS Inst. for Med. and Eng., Univ. of Pennsylvania, PA, USA
SO Latvijas Kimijas Zurnals (2001), (1), 53-58
CODEN: LKZUE8; ISSN: 0868-8249
PB Izdevnieciba "Zinatne"
DT Journal
LA English
AB The authors show that the fluorescence properties of the rhodaminyl amino acids depend strongly on the amino acid to which the rh-group is linked. Thus, histidine and phenylalanine residues cause serious fade of fluorescence. Valine makes solvent dependence of the fluorescence intensity pronounced but lysine increase the pH-induced emission maximum shift to longer wavelengths.
IT 358732-23-7 358732-24-8 358732-25-9
358732-26-0 358732-27-1 358732-28-2
358732-29-3 358732-30-6
RL: ANT (Analyte); ANST (Analytical study)

(fluorescence spectra of Nα-(rhodaminyl B)-L-amino acids)

RN 358732-23-7 CAPLUS

CN L-Arginine, N-[2-[3,6-bis(diethylamino)xanthylium-9-yl]benzoyl]-L-α-glutamyl-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

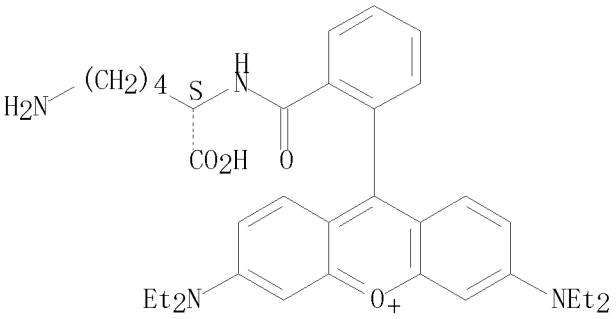


● Cl^-

RN 358732-24-8 CAPLUS

CN Xanthylium, 9-[2-[[[(1S)-5-amino-1-carboxypentyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

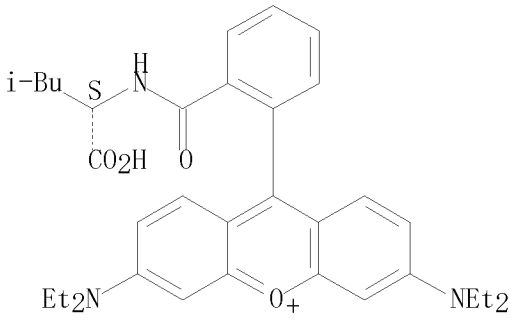


● Cl^-

RN 358732-25-9 CAPLUS

CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-3-methylbutyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

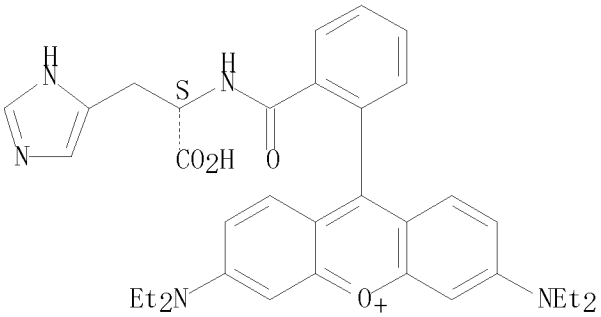
Absolute stereochemistry.



● Cl^-

RN 358732-26-0 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-2-(1H-imidazol-5-yl)ethyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

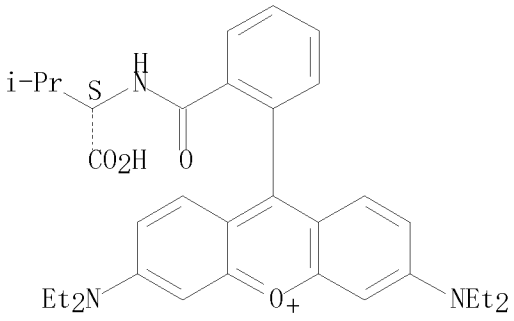
Absolute stereochemistry.



● Cl^-

RN 358732-27-1 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-2-methylpropyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

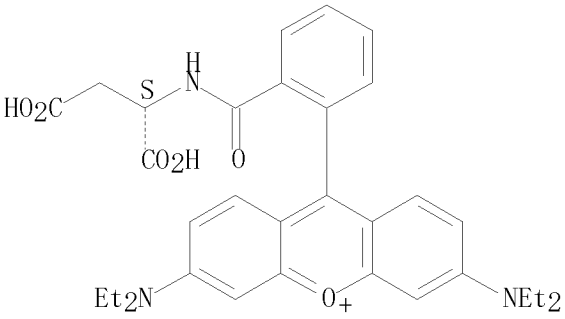
Absolute stereochemistry.



● Cl⁻

RN 358732-28-2 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1,2-dicarboxyethyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

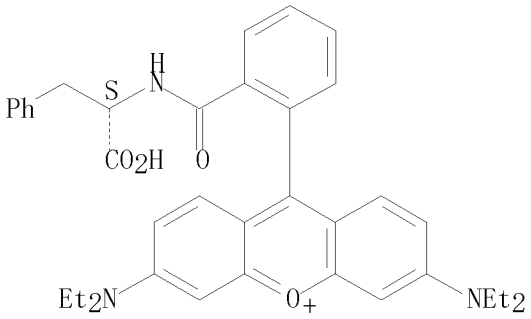
Absolute stereochemistry.



● Cl⁻

RN 358732-29-3 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-1-carboxy-2-phenylethyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

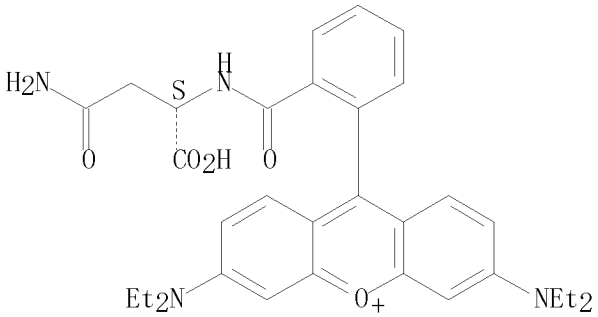
Absolute stereochemistry.



● Cl⁻

RN 358732-30-6 CAPLUS
CN Xanthylium, 9-[2-[[[(1S)-3-amino-1-carboxy-3-oxopropyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● Cl⁻

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 56 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:388480 CAPLUS
DN 135:133818
TI Detection of caspases activation by fluorochrome-labeled inhibitors: multiparameter analysis by laser scanning cytometry
AU Smolewski, Piotr; Bedner, Elzbieta; Du, Litong; Hsieh, Tze-Chen; Wu, Joseph M.; Phelps, David J.; Darzynkiewicz, Zbigniew
CS New York Medical College, Brander Cancer Research Institute, Valhalla, NY, 10532, USA
SO Cytometry (2001), 44(1), 73-82
CODEN: CYTODQ; ISSN: 0196-4763
PB Wiley-Liss, Inc.
DT Journal
LA English
AB Background: The fluorochrome-labeled inhibitors of caspases (FLICA) were recently used as markers of activation of these enzymes in live cells

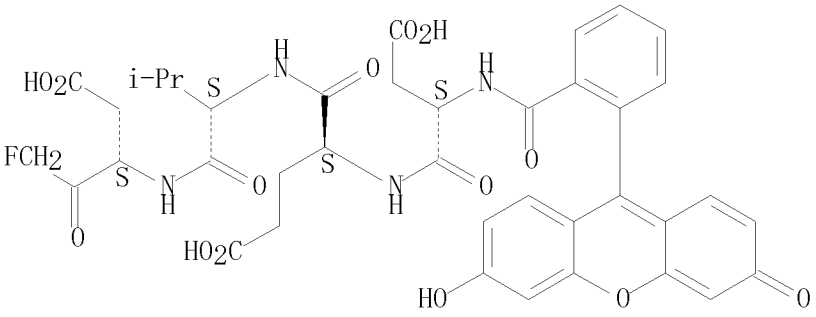
during apoptosis (Bedner et al.: Exp Cell Res 259:308-313, 2000). The aims of this study were to (a) explore if FLICA can be used to study intracellular localization of caspases; (b) combine the detection of caspase activation with anal. of the changes with cell morphol. detected by microscopy and laser scanning cytometry (LSC); and (c) adapt the assay to fixed cells that would enable correlation, by multiparameter anal., of caspase activation with the cell attributes that require cell permeabilization in order to be measured. Methods: Apoptosis of human MCF-7, U-937, or HL-60 cells was induced by camptothecin (CPT) or tumor necrosis factor-α (TNF-α) combined with cycloheximide (CHX). Binding of FLICA to apoptotic vs. nonapoptotic cells was studied in live cells as well as following their fixation and counterstaining of DNA. Intensity of cell labeling with FLICA and DNA-specific fluorochromes was measured by LSC. Results: Exposure of live cells to FLICA led to selective labeling of cells that had morphol. changes characteristic of apoptosis. The FLICA labeling withstood cell fixation and permeabilization, which made it possible to stain DNA and measure its content for identification of the cell cycle position of labeled cells. When fixed cells were treated with FLICA, both apoptotic and nonapoptotic cells became strongly labeled and the labeling pattern was consistent with the localization of caspases as reported in the literature. A translocation of the FLICA binding targets from mitochondria to cytosol was seen in the MCF-7 cells treated with CPT. FLICA binding was largely (>90%) prevented by the substrates of the caspases or by the unlabeled caspase inhibitors having the same peptide moiety as the resp. FLICA. Conclusions: The detection of caspase activation combined with cell permeabilization requires exposure of live cells to FLICA followed by their fixation. Cell reactivity with the resp. FLICA, under these conditions, identifies the activated caspases and makes it possible to correlate their activation with the cell cycle position and other cell attributes that can be measured only after cell fixation/permeabilization. FLICA can also be used to study intracellular localization of caspases, including their translocation.

IT 352031-65-3
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(detection of caspases activation by fluorochrome-labeled inhibitors and multiparameter anal. by laser scanning cytometry)

RN 352031-65-3 CAPLUS

CN L-Valinamide, N-[2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]-L-α-aspartyl-L-α-glutamyl-N-[(1S)-1-(carboxymethyl)-3-fluoro-2-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 65 THERE ARE 65 CAPLUS RECORDS THAT CITE THIS RECORD (65 CITINGS)

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 57 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:208289 CAPLUS
DN 134:247912
TI Charge-modified nucleotide terminators and their use in sequencing and virus inhibition
IN Kumar, Shiv; Flick, Parke; Nelson, John; Finn, Patrick; Nampalli, Satayam; Bull, Matthew
PA Amersham Pharmacia Biotech, Inc., USA
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001019841	A1	20010322	WO 2000-US25433	20000916
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2382063	A1	20010322	CA 2000-2382063	20000916
AU 2000074941	A	20010417	AU 2000-74941	20000916
EP 1214332	A1	20020619	EP 2000-963540	20000916
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI US 1999-154739P	P	19990917		
WO 2000-US25433	W	20000916		

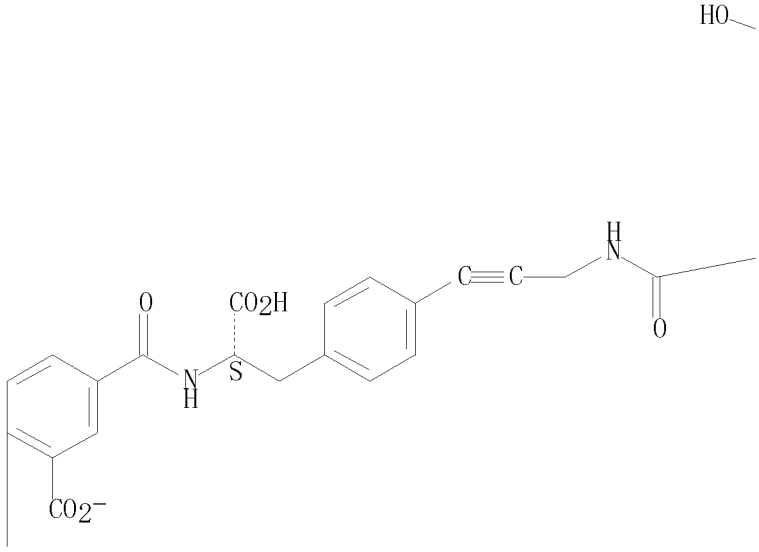
AB Charge-modified nucleic acid terminators comprising Z-X-S-B-L (I; Z = mono-, di-, triphosphate, thiophosphate, boranophosphate; X = O, CH2, S, NH; S = sugar, sugar analog; B = naturally occurring or synthetic base; L = alkyl, alkenyl, alkynyl optionally substituted with reporter moiety; L, B, S, X, or Z are substituted with a moiety which imparts a net neg. charge or a net pos. charge to structure I at physiol. or nucleic acid sequencing conditions) are disclosed. A method of sequencing nucleic acids using the above charge-modified terminators, as well as a method of inhibiting a virus which comprises contacting a cell infected with a virus with a virus-inhibiting amount of the above charge-modified terminator are also disclosed. Thus, many I compds. in which Z = triphosphate, X = O, S = 2',3'-dideoxyribose, and B = A, C, T, or U (i.e., ddNTPs) were prepared and employed in DNA sequencing reactions. Because of the charge on the ddNTP derivs., thermal breakdown products of these compds. were separated from the sequencing ladder, thereby facilitating reading of the sequencing data.

IT 328252-39-7P 328252-40-0P 328252-42-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(charge-modified nucleotide terminators and their use in sequencing and virus inhibition)

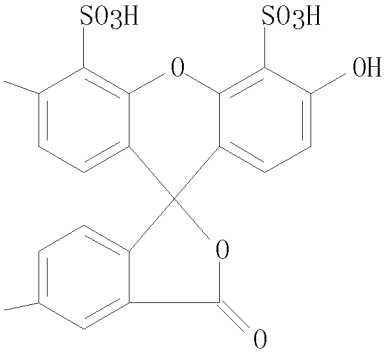
RN 328252-39-7 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

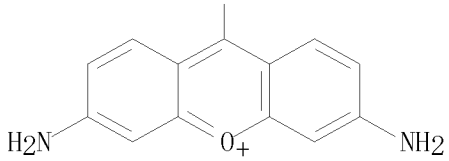
PAGE 1-A



PAGE 1-B



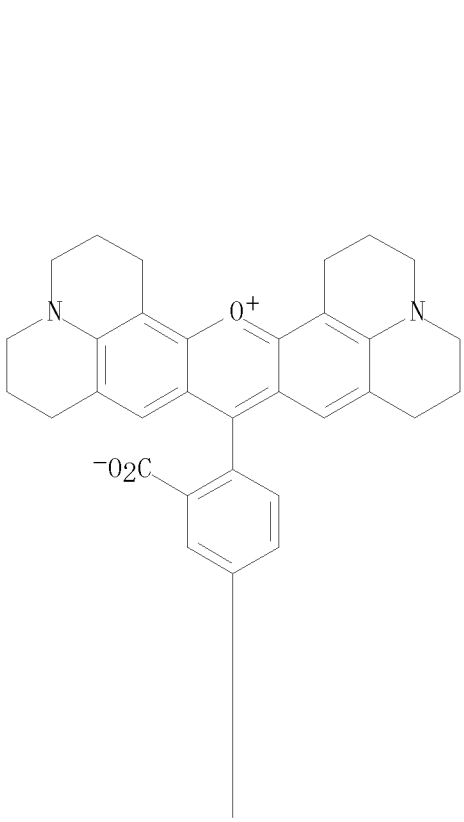
PAGE 2-A



RN 328252-40-0 CAPLUS
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propynyl]phenyl]ethyl]amino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

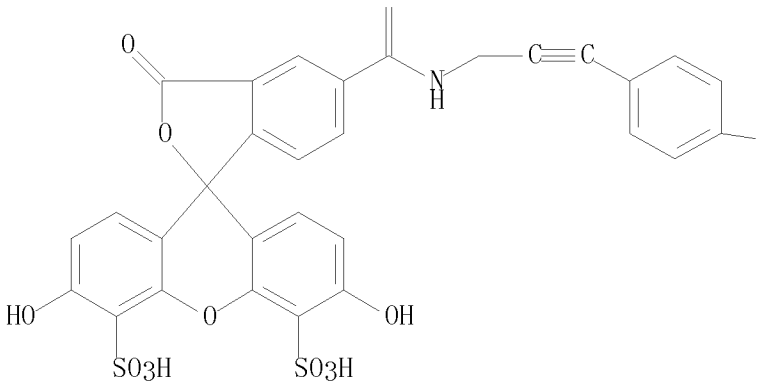
Absolute stereochemistry.

PAGE 1-A

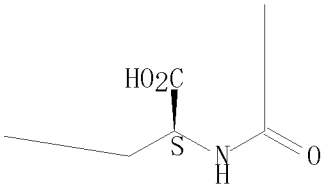


PAGE 1-B

PAGE 2-A



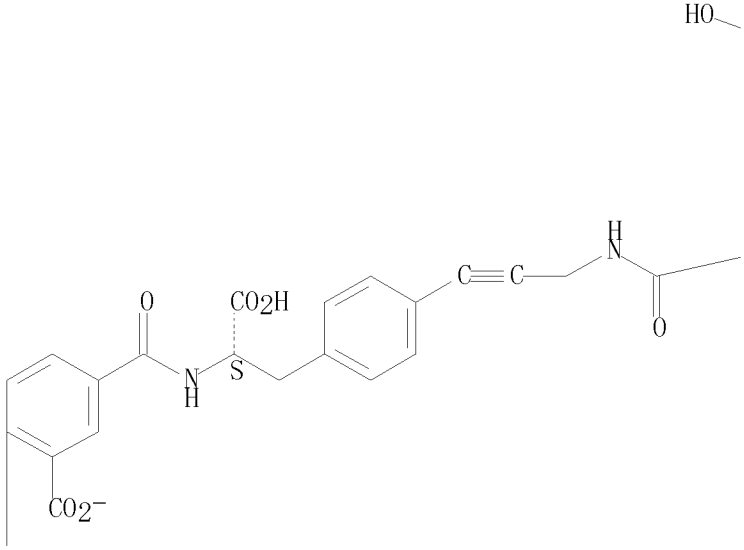
PAGE 2-B



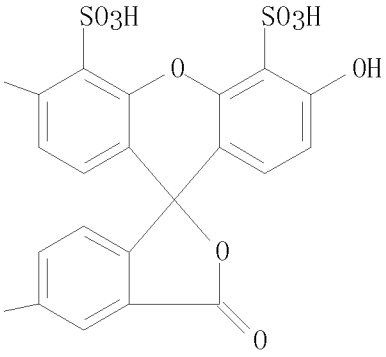
RN 328252-42-2 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

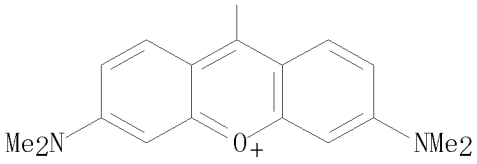
PAGE 1-A



PAGE 1-B



PAGE 2-A



OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 58 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:185948 CAPLUS
DN 134:248826
TI Fluorogenic peptides for the detection of protease activity in biological samples and methods of their use
IN Komoriya, Akira; Packard, Beverly S.
PA Oncoimmunin, Inc., USA
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001018238	A1	20010315	WO 2000-US24882	20000911
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6936687	B1	20050830	US 1999-394019	19990910
	CA 2384021	A1	20010315	CA 2000-2384021	20000911
	EP 1214445	A1	20020619	EP 2000-961782	20000911
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

	JP 2003508080	T	20030304	JP 2001-521773	20000911
	US 20030207264	A1	20031106	US 2000-747287	20001222
	US 6893868	B2	20050517		
	US 20040096926	A1	20040520	US 2001-874350	20010604
	US 7312302	B2	20071225		
	US 20050158766	A1	20050721	US 2004-15864	20041215
	US 7541143	B2	20090602		
	US 20080199898	A1	20080821	US 2007-941766	20071116
PRAI	US 1999-394019	A	19990910		
	US 1997-802981	A2	19970220		
	WO 1998-US3000	A2	19980220		
	WO 2000-US24882	W	20000911		
	US 2000-747287	A3	20001222		
	US 2001-874350	A3	20010604		

OS MARPAT 134:248826

AB The present invention provides for novel reagents whose fluorescence increases in the presence of particular proteases. The reagents comprise a characteristically folded peptide backbone conjugated to two fluorophores such that the fluorophores are located opposite sides of a cleavage site. When the folded peptide is cleaved, as by digestion with a protease, the fluorophores provide a high intensity fluorescent signal at a visible wavelength. Because of their high fluorescence signal in the visible wavelengths, these protease indicators are particularly well suited for detection of protease activity in biol. samples, in particular in frozen tissue sections. Thus, this invention also provides for methods of detecting protease activity in situ in frozen sections.

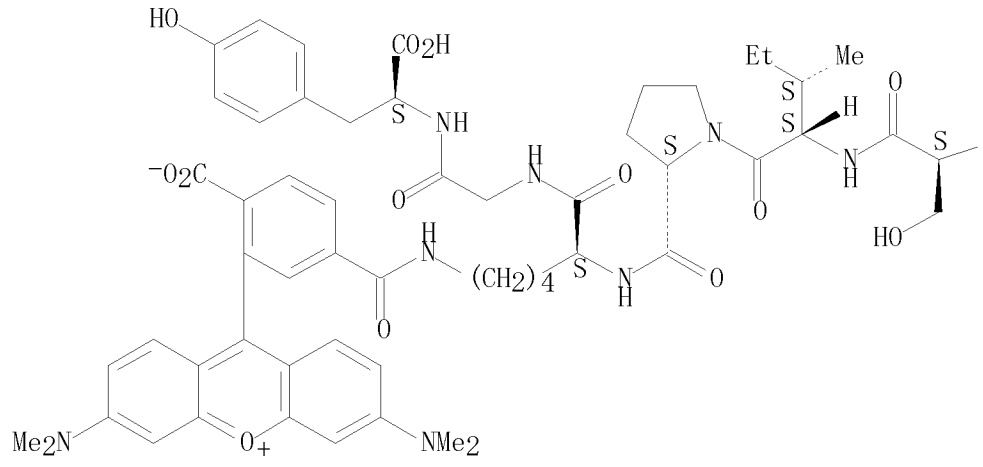
IT 212207-37-9, 6-TMR-NorFes-6-TMR 212268-88-7
212268-91-2
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(fluorogenic peptides for the detection of protease activity in biol. samples and methods of their use)

RN 212207-37-9 CAPLUS

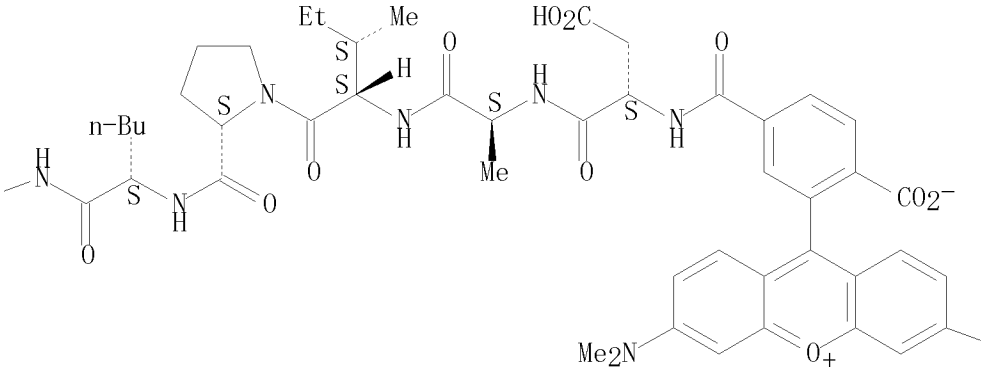
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



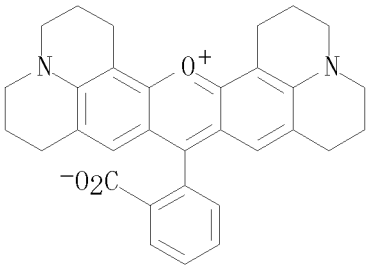
PAGE 1-B

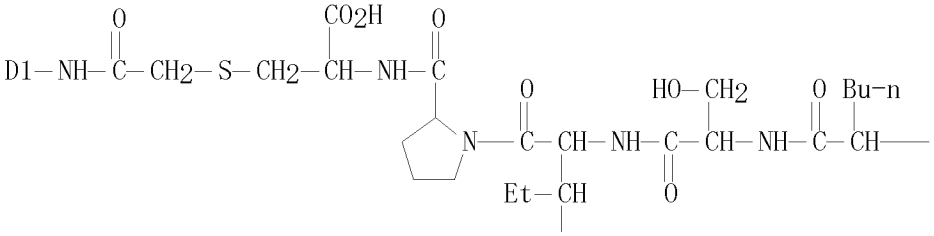


PAGE 1-C

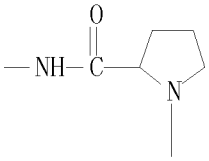
RN 212268-88-7 CAPLUS
CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A



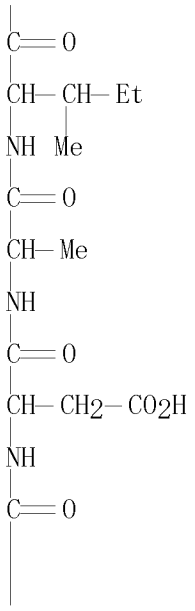


PAGE 1-B



PAGE 2-A

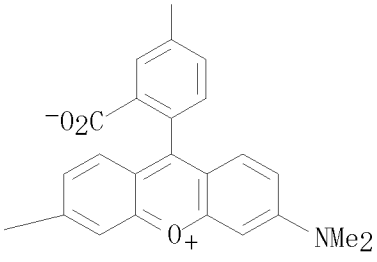
PAGE 2-B



PAGE 3-A

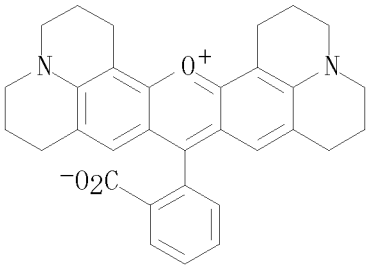
Me_2N

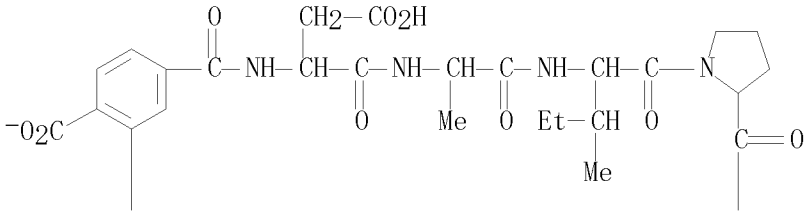
PAGE 3-B



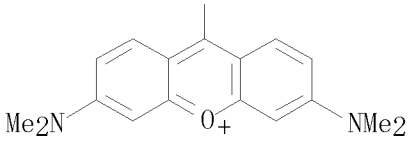
RN 212268-91-2 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

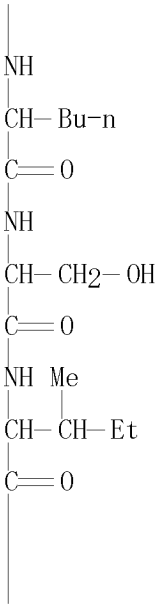
PAGE 1-A

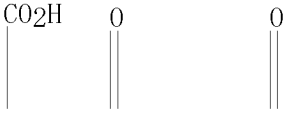




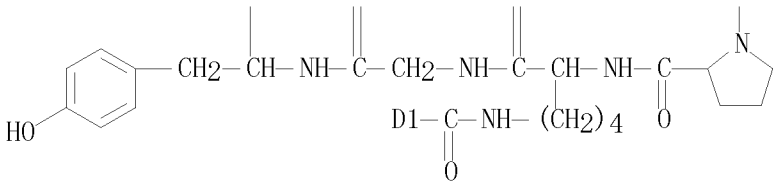
PAGE 2-A







PAGE 3-A



OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 59 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:185609 CAPLUS
DN 134:237836
TI Preparation of peptides for pulmonary delivery compositions via bioconjugation
IN Ezrin, Alan M.; Fleser, Angelica; Robitaille, Martin; Milner, Peter G.; Bridon, Dominique P.
PA Conjuchem, Inc., Can.
SO PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

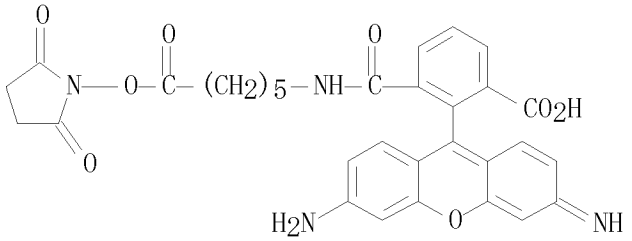
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001017568	A2	20010315	WO 2000-IB1429	20000907
	WO 2001017568	A3	20020711		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6706892	B1	20040316	US 2000-656121	20000906
	CA 2383798	A1	20010315	CA 2000-2383798	20000907
	AU 2000074406	A	20010410	AU 2000-74406	20000907
	AU 781380	B2	20050519		
	EP 1235618	A2	20020904	EP 2000-962766	20000907
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003508501	T	20030304	JP 2001-521356	20000907
	EP 1889639	A2	20080220	EP 2007-20539	20000907
	EP 1889639	A3	20080409		
	R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, AL, LT, LV, MK, RO, SI				
	US 20040156859	A1	20040812	US 2004-756774	20040112
	AU 2005203768	A1	20050915	AU 2005-203768	20050822
PRAI	US 1999-152681P	P	19990907		
	US 2000-656121	A3	20000906		
	EP 2000-962764	A3	20000907		
	WO 2000-IB1429	W	20000907		

AB Methods and compns. for pulmonary delivery of therapeutic agents which are capable of forming covalent bonds with a site of interest or which have formed a covalent bond with a pulmonary solution protein are disclosed. A

modified therapeutic agent comprises a therapeutic agent (GP-41 peptides, BBB peptides, anticancer agents, antihistamines, etc.) and a reactive group which reacts in vivo with amino, hydroxyl or thiol groups on pulmonary components or blood components to form a stable covalent bond. In the examples, a series of peptides (e.g., modified RGD peptide AGYKPEGKRGDAK) were synthesized by the solid phase method.

IT 1100835-78-6
RL: PRPH (Prophetic)
(Preparation of peptides for pulmonary delivery compositions via bioconjugation)

RN 1100835-78-6 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



● HC1

OSC.G 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 60 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:152853 CAPLUS
DN 134:204343
TI Taq DNA polymerases containing substitution at position 681 (E→R), their sequences, recombinant production, and use in DNA sequencing
IN Davis, Maria; Nelson, John; Kumar, Shiv; Finn, Patrick J.; Nampalli, Satyaam; Flicke, Parke
PA Amersham Pharmacia Biotech Inc., USA
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001014568	A1	20010301	WO 2000-US22150	20000810
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2381206	A1	20010301	CA 2000-2381206	20000810
	AU 2000067687	A	20010319	AU 2000-67687	20000810
	EP 1210440	A1	20020605	EP 2000-955487	20000810
	EP 1210440	B1	20050720		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL

	JP 2003507072	T	20030225	JP 2001-518880	20000810
	AT 299940	T	20050815	AT 2000-955487	20000810
PRAI	US 1999-154739P	P	19990917		
	WO 2000-US22150	W	20000810		

AB The invention provides two recombinant thermostable Taq DNA polymerases, referred to as TaqΔ271/F272M/F667Y/E681R and TaqD18A/E681R/F667Y, which have a substantial improvement of signal uniformity when used in DNA sequencing reactions. The invention relates that these DNA polymerases contain a novel substitution at 681, glutamic acid to arginine (E→R). The invention also provides for nucleic acid mols. encoding said DNA polymerases, DNA vectors containing said nucleic acid mols., and host cells (such as Escherichia coli) transformed with said DNA vectors. The invention further provides for the: (1) use of said thermostable DNA polymerases in DNA sequencing; (2) synthesis of fluorescently labeled polynucleotides using said DNA polymerases, and (3) a kit for sequencing DNA comprising said DNA polymerases and nucleic acid terminators having a net neg. or net pos. charge. Finally, the invention provides the amino acid sequences of DNA polymerases TaqΔ271/F272M/F667Y/E681R and TaqD18A/E681R/F667Y, which are based on the sequence from Thermus aquaticus. The invention related these recombinant DNA polymerases possess improved salt tolerance and showed that they can modulate the incorporation of terminators having a net pos. or a net neg. charge during the sequencing reaction.

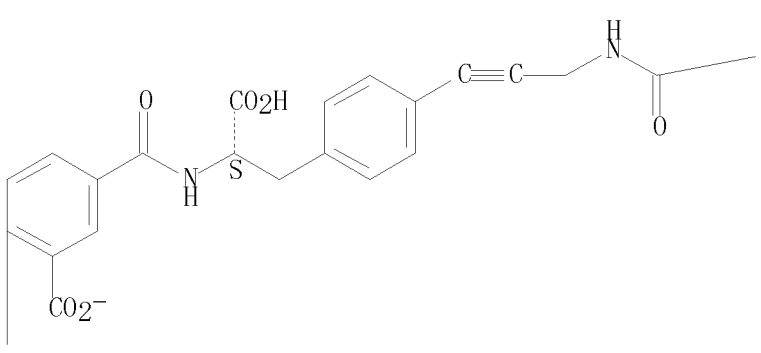
IT 328252-39-7P 328252-40-0P 328252-42-2P
328252-44-4P 328252-58-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(Taq DNA polymerases containing substitution at position 681 (E→R), their sequences, recombinant production and use in DNA sequencing)

RN 328252-39-7 CAPLUS

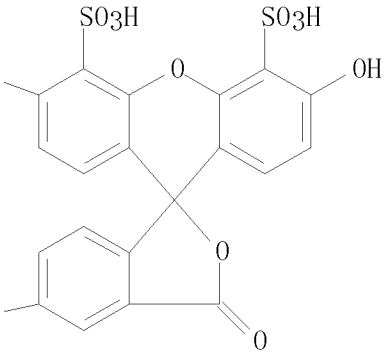
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

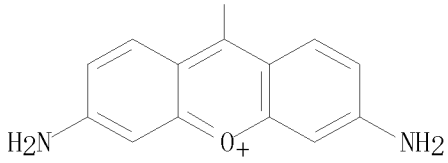
PAGE 1-A



PAGE 1-B



PAGE 2-A

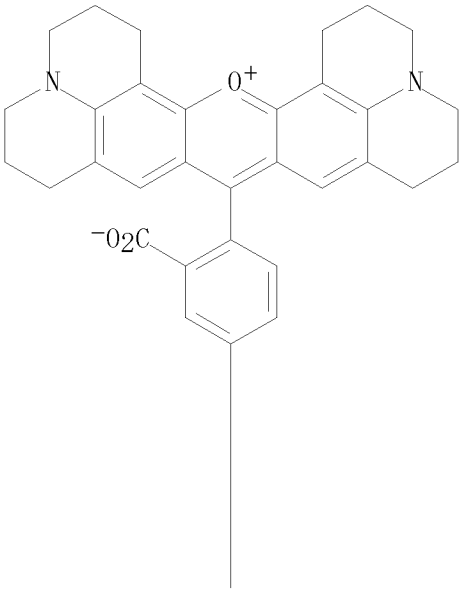


RN 328252-40-0 CAPLUS
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propynyl]phenyl]ethyl]amino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

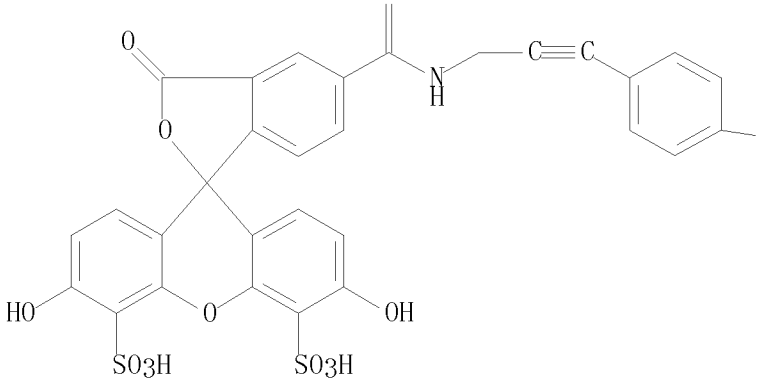
Absolute stereochemistry.

PAGE 1-A

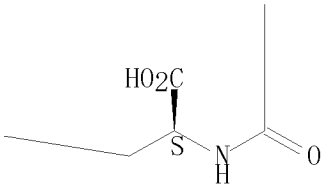
PAGE 1-B



PAGE 2-A



PAGE 2-B

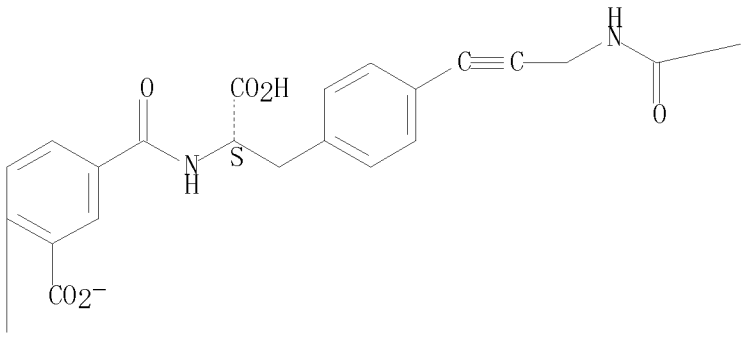


RN 328252-42-2 CAPLUS
CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-3,6-

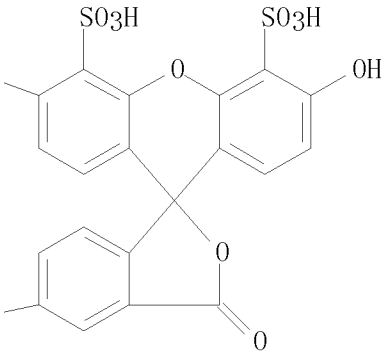
bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

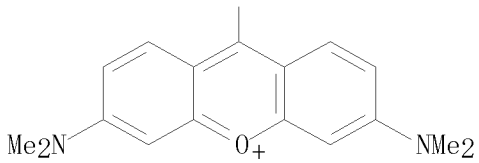
PAGE 1-A



PAGE 1-B



PAGE 2-A

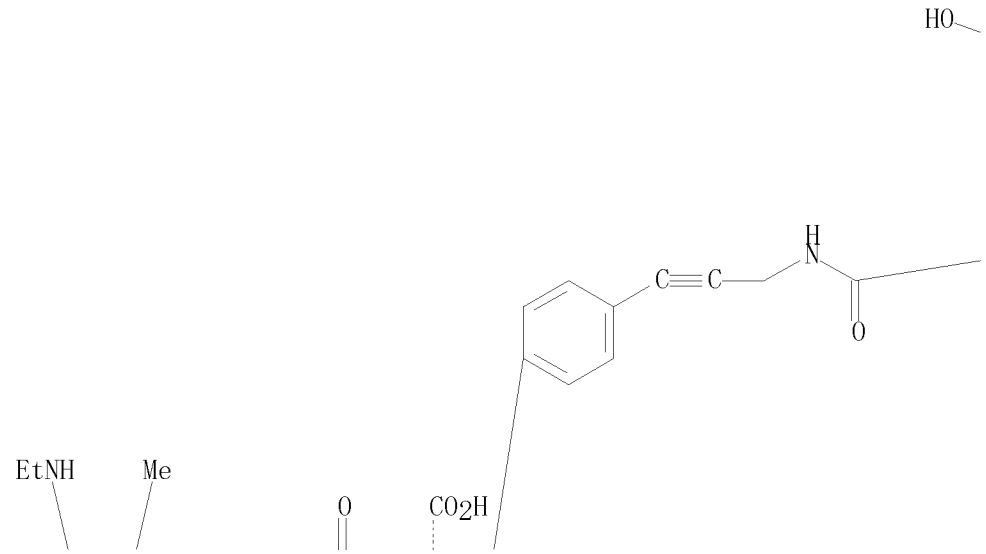


RN 328252-44-4 CAPLUS

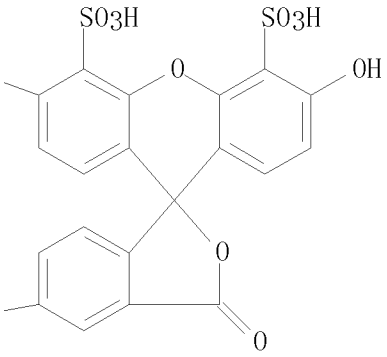
CN Xanthylium, 9-[4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxo-4',5'-disulfospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]-2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl- (CA INDEX NAME)

Absolute stereochemistry.

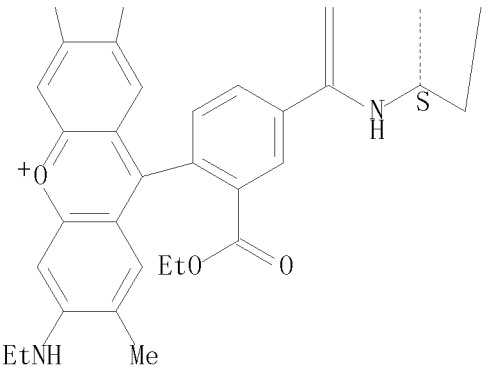
PAGE 1-A



PAGE 1-B

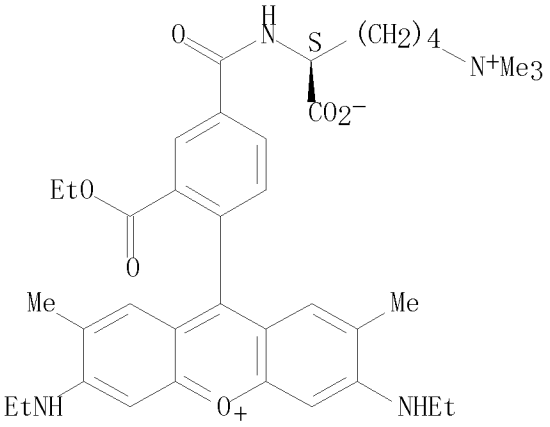


PAGE 2-A



RN 328252-58-0 CAPLUS
CN Xanthylium, 9-[4-[[[(1S)-1-carboxy-5-(trimethylammonio)pentyl]amino]carbonyl]-2-(ethoxycarbonyl)phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

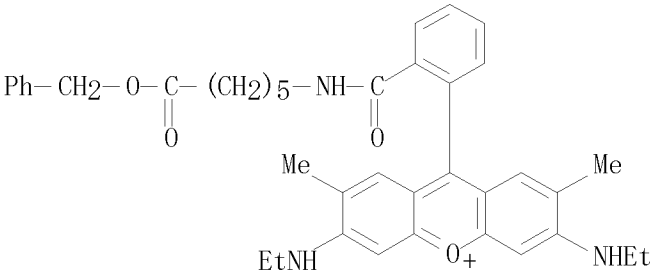


OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 61 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2000:496103 CAPLUS
DN 133:252254
TI Efficient synthesis of rhodamine conjugates through the 2'-position
AU Adamczyk, M.; Grote, J.
CS Abbott Diagnostics Division, Department of Organic Chemistry (D9NM), Abbott Laboratories, Abbott Park, IL, 60064-6016, USA
SO Bioorganic & Medicinal Chemistry Letters (2000), 10(14), 1539-1541
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 133:252254
AB Reaction of substrates containing primary amines with rhodamine 2'-esters cleanly produces fluorescent rhodamine 2'-amide conjugates at ambient temperature Only primary amines react with the esters under these conditions. Chemoselectivity can thus be achieved in substrates containing different types of amines.
IT 295776-86-2P 295776-94-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and fluorescence of)
RN 295776-86-2 CAPLUS
CN Xanthylium, 3,6-bis(ethylamino)-2,7-dimethyl-9-[2-[[[6-oxo-6-(phenylmethoxy)hexyl]amino]carbonyl]phenyl]-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

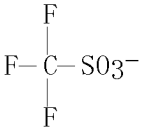
CM 1

CRN 295776-85-1
CMF C39 H44 N3 04



CM 2

CRN 37181-39-8
CMF C F3 O3 S

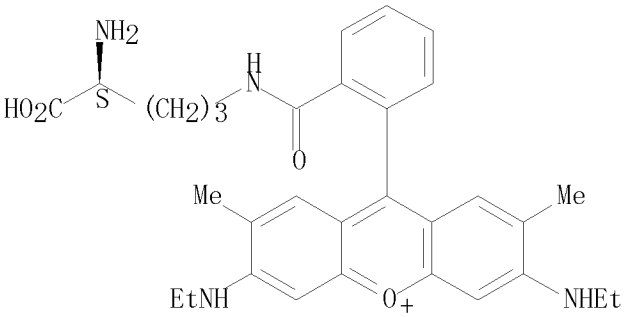


RN 295776-94-2 CAPLUS
CN Xanthylium, 9-[2-[[[(4S)-4-amino-4-carboxybutyl]amino]carbonyl]phenyl]-3,6-bis(ethylamino)-2,7-dimethyl-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

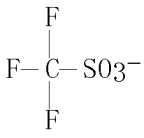
CRN 295776-93-1
CMF C31 H37 N4 O4

Absolute stereochemistry.



CM 2

CRN 37181-39-8
CMF C F3 O3 S



OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 62 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2000:161551 CAPLUS
DN 132:205138
TI Energy transfer dyes
IN Kumar, Shiv; Nampalli, Satyam; Khot, Mahesh
PA Amersham Pharmacia Biotech, Inc., USA
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000013026	A1	20000309	WO 1999-US19739	19990830
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	GB 2341189	A	20000308	GB 1999-20022	19990825
	GB 2341189	B	20010613		
	CA 2341520	A1	20000309	CA 1999-2341520	19990830
	AU 9956970	A	20000321	AU 1999-56970	19990830
	AU 767840	B2	20031127		
	EP 1110088	A1	20010627	EP 1999-943985	19990830
	EP 1110088	B1	20031015		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002523783	T	20020730	JP 2000-567958	19990830
	AT 252239	T	20031115	AT 1999-943985	19990830
	ES 2209492	T3	20040616	ES 1999-943985	19990830
	US 6967250	B1	20051122	US 1999-386576	19990830
PRAI	US 1998-98469P	P	19980831		
	WO 1999-US19739	W	19990830		

OS MARPAT 132:205138
AB Energy transfer dyes, their preparation, and their use as labels in biol. systems is disclosed. The dyes are preferably in the form of cassettes which enable their attachment to a variety of biol. materials. The dyes and the reagents that can be made from them offer a wide variety of fluorescent labels with large Stokes' shifts enabling their use in a variety of fluorescence applications over a wide range of the visible spectrum.
IT 260397-87-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(energy transfer dyes)
RN 260397-87-3 CAPLUS
CN 1H,5H,11H,15H-Xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propynyl]phenyl]ethyl]amino]carbonyl]phenyl]-2,3,6,7,12,13,16,17-octahydro-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

0
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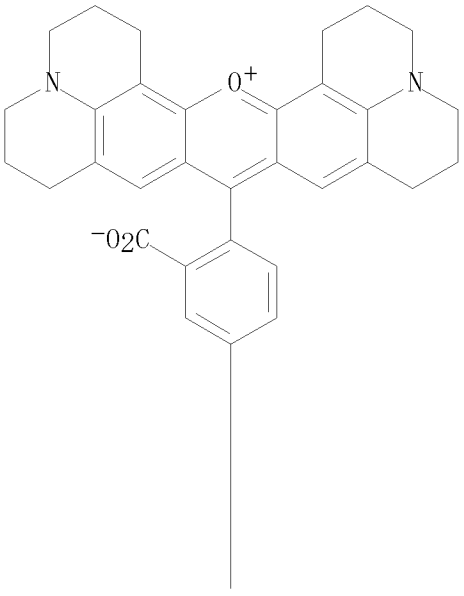
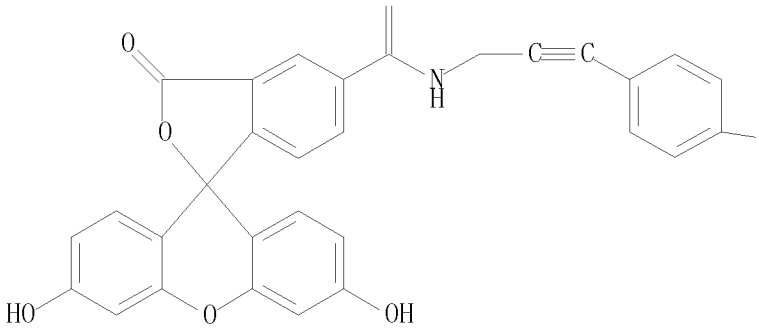
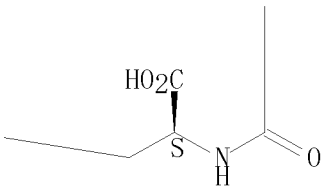
PAGE 1-B



PAGE 2-A



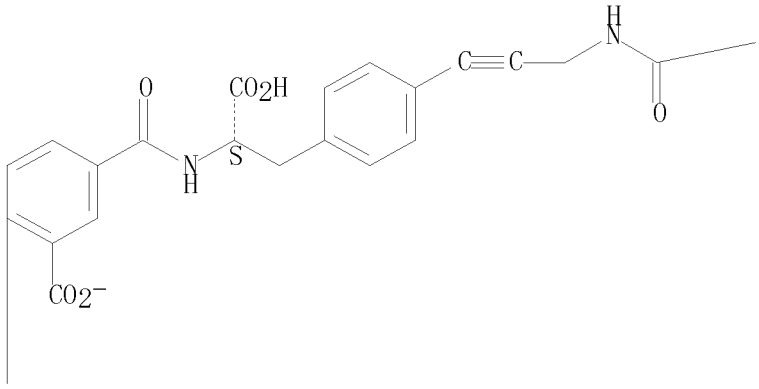
PAGE 2-B



IT 260397-88-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(energy transfer dyes)
RN 260397-88-4 CAPLUS
CN Xanthylium, 3,6-diamino-9-[2-carboxy-4-[[[(1S)-1-carboxy-2-[4-[3-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]-1-propyn-1-yl]phenyl]ethyl]amino]carbonyl]phenyl]-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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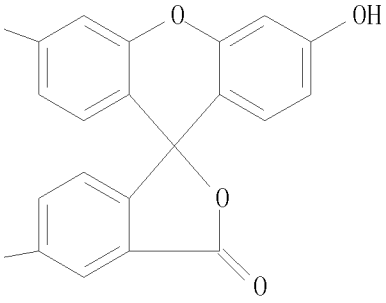
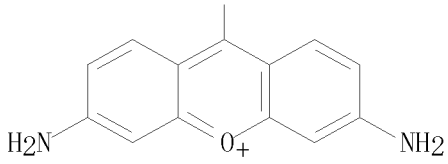


PAGE 2-A



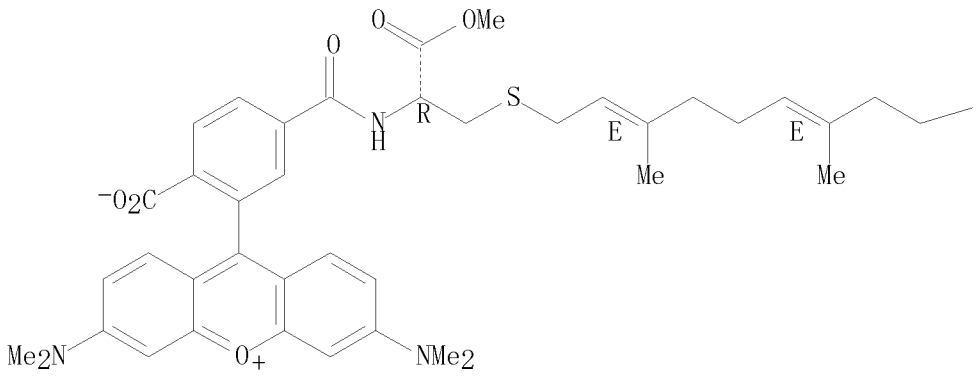
OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 63 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:799752 CAPLUS
DN 132:148214
TI The Specific Binding of Small Molecule Isoprenoids to rhoGDP Dissociation Inhibitor (rhoGDI)

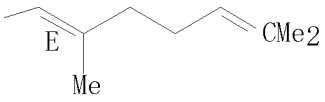
AU Mondal, Madhu S.; Wang, Zhaolin; Seeds, Andrew M.; Rando, Robert R.
CS Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, Boston, MA, 02115, USA
SO Biochemistry (2000), 39(2), 406-412
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB The activities of small G-proteins are in part regulated by their interactions with GDI proteins. This binding is thought to be dependent on the C-terminal isoprenoid modification (geranylgeranyl or farnesyl) of these proteins. G-proteins are generally isoprenylated/methylated at their C-terminal cysteine residues. A quant. fluorescence assay is reported here to evaluate the specificity of binding of rhoGDI. A rhodamine-labeled geranylgeranylated/methylated cysteine derivative is used to measure its binding to rhoGDI. Saturable binding in the low micromolar range is found with various geranylgeranylated/farnesylated analogs. Interestingly, the carboxymethylated derivs. bound significantly better than their free acid counterparts, suggesting that the state of methylation of the analogs is important for binding. The binding is also selective with respect to isoprenoid. Analogs containing hydrophobic modifications other than geranylgeranyl or farnesyl do not bind with significant affinities. These data demonstrate a substantial degree of specificity in the binding of isoprenoids to a protein important in signal transduction.
IT 257299-66-4
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(the specific binding of small mol. isoprenoids to rhoGDP dissociation inhibitor (rhoGDI))
RN 257299-66-4 CAPLUS
CN Xanthylium, 9-[2-carboxy-5-[[[(1R)-2-methoxy-2-oxo-1-[[[(2E,6E,10E)-3,7,11,15-tetramethyl-2,6,10,14-hexadecatetraen-1-yl]thio]methyl]ethyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 64 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:561610 CAPLUS
DN 131:166214
TI Energy transfer dyes with enhanced fluorescence, reagents containing them, and their use in nucleic acid sequencing
IN Lee, Linda G.; Spurgeon, Sandra L.; Rosenblum, Barnett
PA Perkin-Elmer Corporation, USA
SO U.S., 77 pp., Cont.-in-part of U.S. 5,863,727.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5945526	A	19990831	US 1998-46203	19980323
	US 5863727	A	19990126	US 1996-642330	19960503
	US 5847162	A	19981208	US 1996-672196	19960627
	JP 2003221515	A	20030808	JP 2002-280013	19970521
	US 6335440	B1	20020101	US 1999-272097	19990318
	US 20020086985	A1	20020704	US 2001-14743	20011029
	US 6849745	B2	20050201		
	US 20050069912	A1	20050331	US 2004-788836	20040226
	US 7169939	B2	20070130		
	US 20050112781	A1	20050526	US 2004-788660	20040226
	US 7550570	B2	20090623		
	JP 2004305217	A	20041104	JP 2004-152623	20040521
	US 20070154924	A1	20070705	US 2006-617667	20061228
	US 7423140	B2	20080909		
	US 20070161026	A1	20070712	US 2006-617660	20061228
	US 7399854	B2	20080715		
	US 20070161027	A1	20070712	US 2006-617665	20061228
	US 7388092	B2	20080617		
	US 20070154925	A1	20070705	US 2006-618679	20061229
	US 7449298	B2	20081111		
	US 20070154926	A1	20070705	US 2006-618683	20061229
	US 7452672	B2	20081118		
	US 20070154927	A1	20070705	US 2006-618693	20061229
	US 20070207477	A1	20070906	US 2006-618688	20061229
	US 7449149	B2	20081111		
	US 20070212709	A1	20070913	US 2006-618663	20061229
	US 7432058	B2	20081007		
	US 20080268509	A1	20081030	US 2006-618667	20061229
	US 20090118485	A1	20090507	US 2008-205817	20080905
	JP 2009073838	A	20090409	JP 2008-249238	20080926
PRAI	US 1996-642330	A2	19960503		
	US 1996-672196	A2	19960627		

	US 1996-726462	A1	19961004
	JP 1998-502974	A3	19970521
	JP 2002-280013	A3	19970521
	US 1998-46203	A1	19980323
	US 1999-272097	A1	19990318
	US 2000-578920	A1	20000525
	US 2001-14743	A1	20011029
	US 2004-788836	A1	20040226
	US 2006-617667	A1	20061228

OS MARPAT 131:166214

AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers facilitate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R21ZCOR2R3 (R1=C1-5 alkyl attached to the donor dye; Z=NH, S, O; R2=alkene, diene, alkyne, 5-6-membered ring having at least one unsatd. bond or a fused ring structure which is attached to the carbonyl carbon; R3=functional group which attaches the linker to the acceptor dye). A preferred linker is CH2NHCOC6H4CH2NHCO. Thus, 9-(2,4-dicarboxyphenyl)-3,6-bis(dimethylamino)xanthylium was esterified (4-CO2H) with N-hydroxysuccinimide (I), condensed with 4-H2NCH2C6H4CO2H, re-esterified with I, and condensed with 4'-(aminomethyl)-5-carboxyfluorescein to give an energy transfer dye (II), esterification of which with I provided a site for coupling to a nucleoside. In DNA sequencing, an oligonucleotide labeled with II was brighter than one labeled with the direct amide of the resp. carboxyrhodamine and (aminomethyl)fluorescein not containing a spacer bridge.

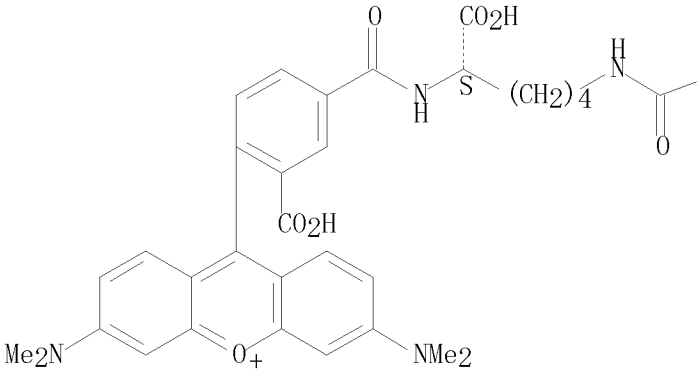
IT 212390-03-9P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(energy transfer dyes with enhanced fluorescence, reagents containing them, and their use in nucleic acid sequencing)

RN 212390-03-9 CAPLUS

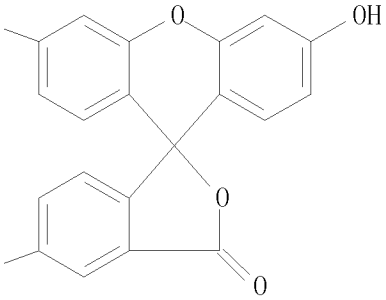
CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-5-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]pentyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



OSC.G 24 THERE ARE 24 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 65 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:422312 CAPLUS
DN 131:226424
TI Imaging of caspase-3 activation in HeLa cells stimulated with etoposide using a novel fluorescent probe
AU Mizukami, Shin; Kikuchi, Kazuya; Higuchi, Tsunehiko; Urano, Yasuteru; Mashima, Tetsuo; Tsuruo, Takashi; Nagano, Tetsuo
CS Graduate School of Pharmaceutical Sciences, The University of Tokyo, Bunkyo-ku, Tokyo, Japan
SO FEBS Letters (1999), 453(3), 356-360
CODEN: FEBLAL; ISSN: 0014-5793
PB Elsevier Science B.V.
DT Journal
LA English
AB Microscopic visualization of intracellular enzyme activity can provide information about the physiol. role of the enzyme. Caspases are cysteine proteases that have critical roles in the execution of apoptosis. General

fluorometric substrates of caspase-3, such as DEVD-MCA, are unsuitable for imaging because they are excited at short wavelength, so we designed and synthesized novel fluorescent probes that are excited at suitable wavelengths for detecting caspase-3 activity in living cells. Using one of these probes, we succeeded in microscopic visualization of caspase-3-like activity within HeLa cells treated with etoposide. The caspase-3-like activity was increased in the cytosol at first, then expanded to the whole cell.

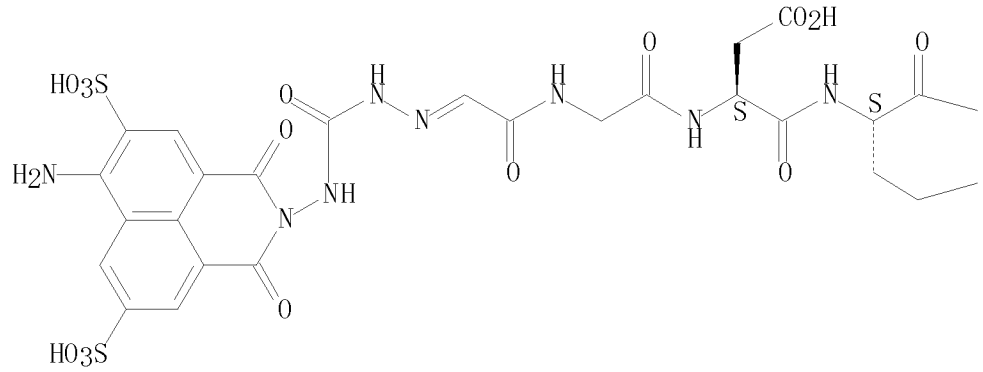
IT 244075-40-9 244075-42-1
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(imaging of caspase-3 activation using novel fluorescent probe in etoposide-stimulated HeLa cells)

RN 244075-40-9 CAPLUS

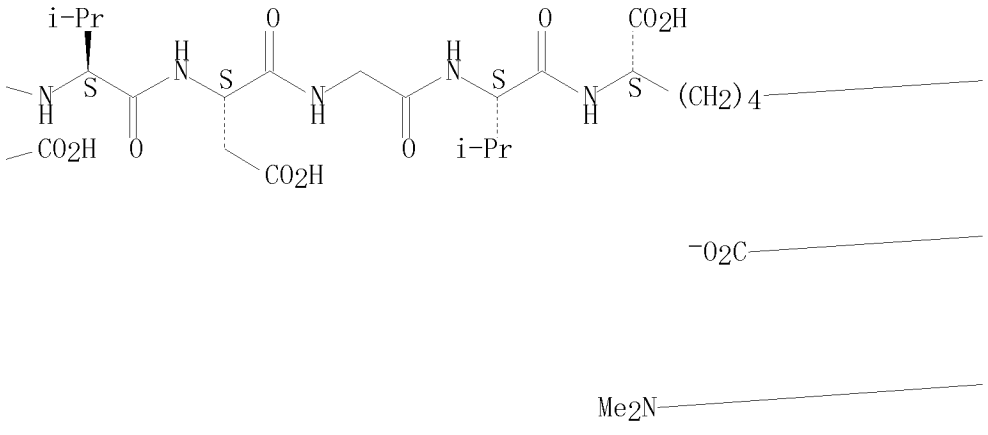
CN L-Lysine, N-[[[[(6-amino-1,3-dioxo-5,8-disulfo-1H-benz[de]isoquinolin-2(3H)-yl)amino]carbonyl]hydrazono]acetyl]glycyl-L-α-aspartyl-L-α-glutamyl-L-valyl-L-α-aspartylglycyl-L-valyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

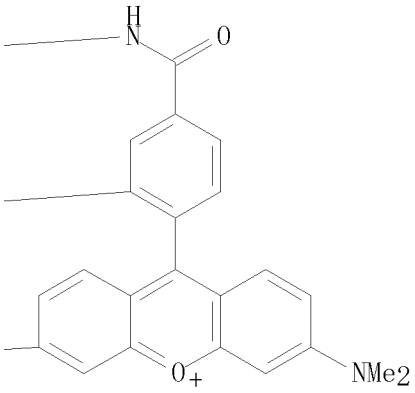
PAGE 1-A



PAGE 1-B



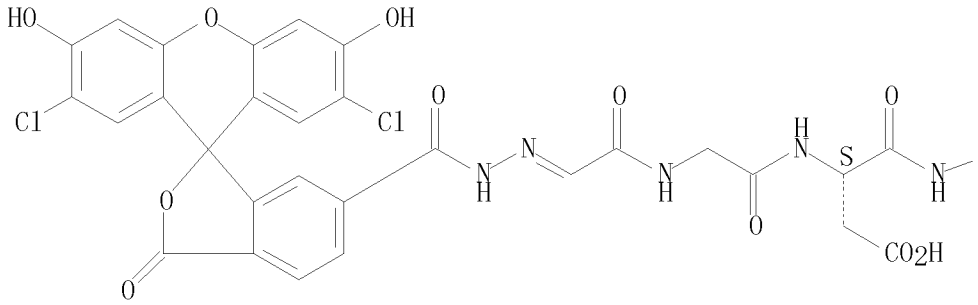
PAGE 1-C



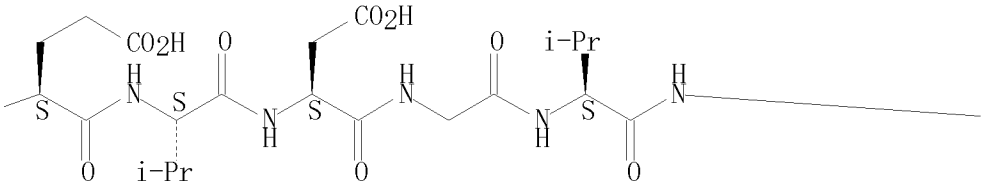
RN 244075-42-1 CAPLUS
CN L-Lysine, N-[[[(2',7'-dichloro-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]hydrazono]acetyl]glycyl-L-α-asparty1-L-α-glutamyl-L-valyl-L-α-aspartylglycyl-L-valyl-N6-[3-carboxy-4-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

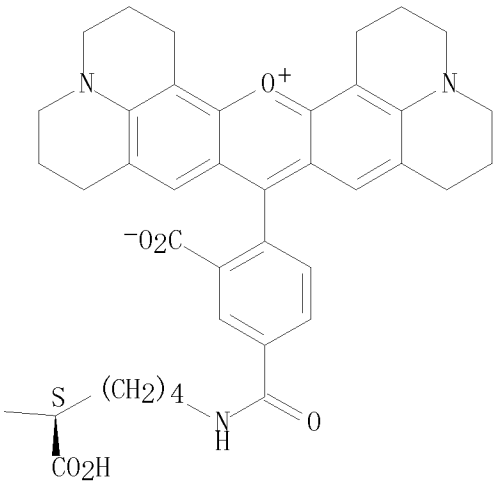
PAGE 1-A



PAGE 1-B



PAGE 1-C



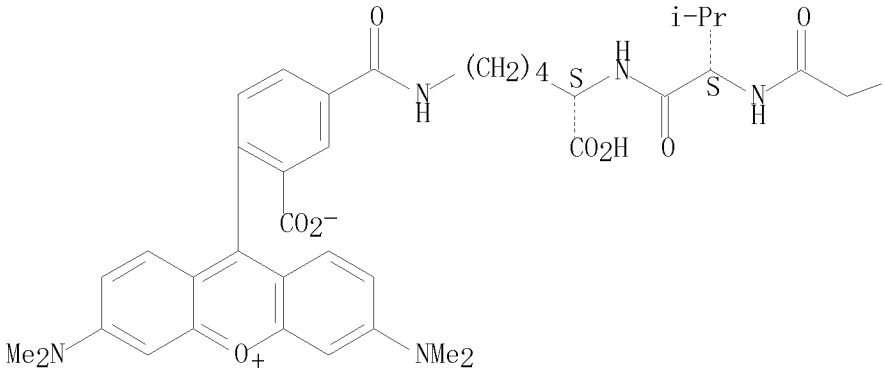
IT 244075-41-0
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(imaging of caspase-3 activation using novel fluorescent probe in etoposide-stimulated HeLa cells)

RN 244075-41-0 CAPLUS

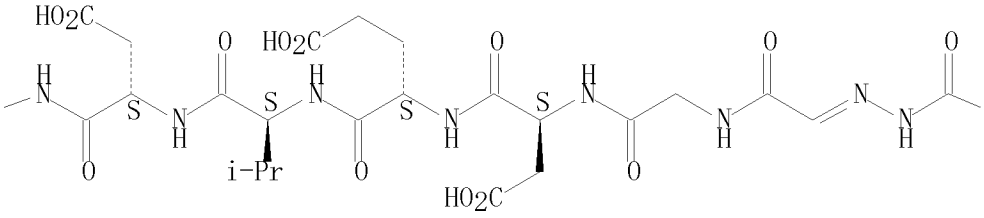
CN L-Lysine, N-[[[(2',7'-dichloro-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]hydrazono]acetyl]glycyl-L-α-aspartyl-L-α-glutamyl-L-valyl-L-α-aspartylglycyl-L-valyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

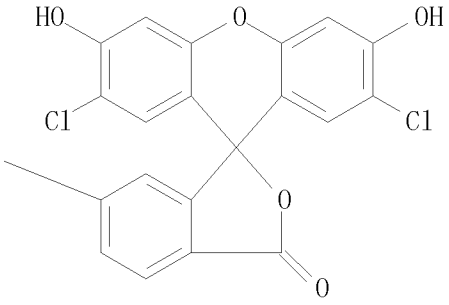
PAGE 1-A



PAGE 1-B



PAGE 1-C



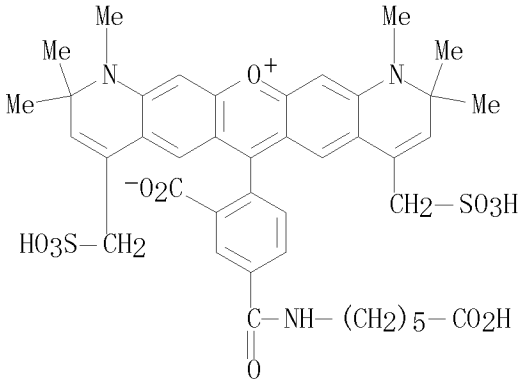
OSC.G 56 THERE ARE 56 CAPLUS RECORDS THAT CITE THIS RECORD (56 CITINGS)
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 66 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:222928 CAPLUS
DN 130:264438
TI Sulfonated xanthene derivatives synthesis and applications as fluorescent stains
IN Mao, Fei; Leung, Wai-Yee; Haugland, Richard P.
PA Molecular Probes, Inc., USA

SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9915517	A1	19990401	WO 1998-US19921	19980923
	W: AU, CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6130101	A	20001010	US 1997-935963	19970923
	CA 2272403	A1	19990401	CA 1998-2272403	19980923
	AU 9895046	A	19990412	AU 1998-95046	19980923
	AU 750380	B2	20020718		
	EP 966458	A1	19991229	EP 1998-948483	19980923
	EP 966458	B1	20030813		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE				
	JP 2001508494	T	20010626	JP 1999-519270	19980923
	AT 247098	T	20030815	AT 1998-948483	19980923
	WO 2000017650	A1	20000330	WO 1999-US22193	19990923
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9964002	A	20000410	AU 1999-64002	19990923
PRAI	US 1997-935963	A	19970923		
	WO 1998-US19921	W	19980923		
	US 1998-209045	A	19981209		
	WO 1999-US22193	W	19990923		

OS MARPAT 130:264438
AB The present invention describes xanthene dyes, including rhodamines, rhodols and fluoresceins that are substituted one or more times by a sulfonic acid or a salt of a sulfonic acid. The dyes of the invention, including chemical reactive dyes and dye-conjugates are useful as fluorescent probes, particularly in biol. samples.
IT 222159-85-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(sulfonated xanthene derivs. synthesis and applications as fluorescent stains)
RN 222159-85-5 CAPLUS
CN Pyrano[3,2-g:5,6-g']diquinolin-13-ium, 6-[2-carboxy-4-[[(5-carboxypentyl)amino]carbonyl]phenyl]-1,2,10,11-tetrahydro-1,2,2,10,10,11-hexamethyl-4,8-bis(sulfomethyl)-, inner salt, monolithium salt (9CI) (CA INDEX NAME)



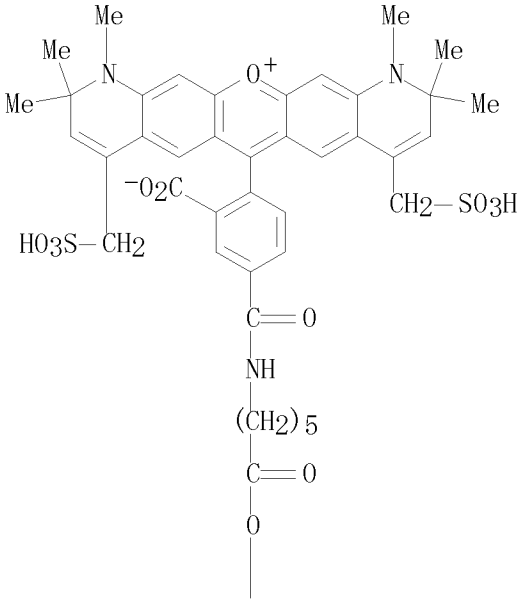
● Li

IT 222159-86-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(sulfonated xanthene derivs. synthesis and applications as fluorescent stains)

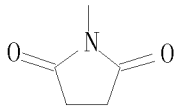
RN 222159-86-6 CAPLUS

CN Pyrano[3,2-g:5,6-g']diquinolin-13-ium, 6-[2-carboxy-4-[[[[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]amino]carbonyl]phenyl]-1,2,10,11-tetrahydro-1,2,2,10,10,11-hexamethyl-4,8-bis(sulfomethyl)-, inner salt, monolithium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● Li

OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 67 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:64819 CAPLUS
DN 130:110648
TI Compounds having energy transfer function and determination method for DNA base sequencing by using the same
IN Hayashizaki, Yoshihide; Tanaka, Takumi
PA The Institute of Physical and Chemical Research, Japan; Wako Pure Chemical Industries, Ltd.
SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9902544	A1	19990121	WO 1998-JP3093	19980710
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2265551	A1	19990121	CA 1998-2265551	19980710
	EP 967219	A1	19991229	EP 1998-931037	19980710
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 6482938	B1	20021119	US 1999-254547	19990917
	JP 2004135673	A	20040513	JP 2003-365798	20031027
	JP 3656075	B2	20050602		
	JP 2004329218	A	20041125	JP 2004-198320	20040705
PRAI	JP 1997-186886	A	19970711		
	JP 1999-508451	A3	19980710		
	WO 1998-JP3093	W	19980710		
	JP 2003-365798	A3	20031027		

OS MARPAT 130:110648
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Compds. Q1VCOR1(NHW2)NH(COCHR2NR3)mW1 (I; Q1 = mono or oligonucleotide residue; V = C.tplbond.C(CH2)n1NH, or CH:CH(CH2)n2NH; n1, n2, m > 1; R1 = trivalent radical; R2, R3 = H or hydrocarbyl, etc.; W1, W2 = fluorescent group) having two reporters capable of serving as a donor and an acceptor in energy transfer, for example, a fluorescent group together with a 2',3'-deoxyribonucleotide residue or a 3'-deoxyribonucleotide residue, are prepared I can serve as a terminator in the chain terminator method. These

two reporters are located at a sufficient interval for inducing energy transfer. A method for DNA base sequencing by the chain terminator method wherein the chain termination reaction is effected with the use of the above terminators. I, having two reporters capable of serving as a donor and an acceptor in energy transfer, are usable as primers or initiators in a method for DNA base sequencing with the use of the chain terminator method and a method for DNA base sequencing with the use of these compds. Thus, FAM-(Pro)8-Lys-OH was condensed with 5-carboxytetramethylrhodamine succinimide ester in the presence of Et3N at room temperature for 19 h to give FAM-(Pro)8-Lys(ε TMR) (II; R = OH) which was further condensed with 5-(6''-amino-1''-hexynyl)-3'-deoxyuridine-5'-triphosphate using N,N'-disuccinimidyl carbonate, 4-dimethylaminopyridine in aqueous DMF to give TMR-labeled 3'-deoxyuridine-5'-triphosphate II (R = Q).

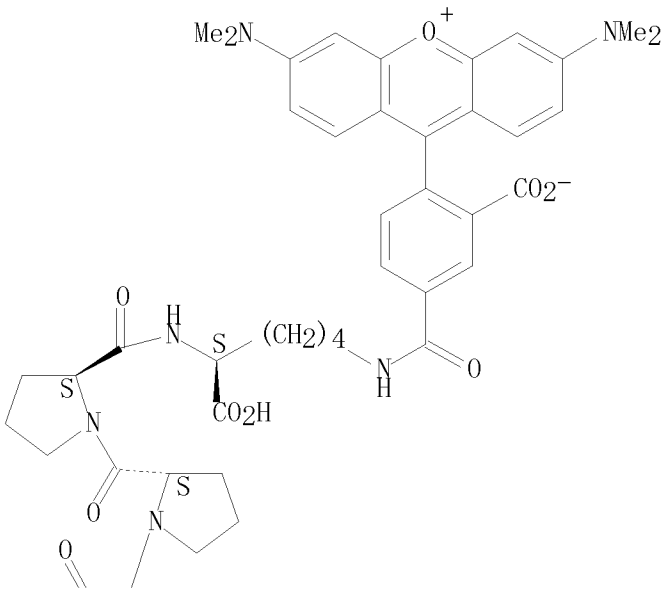
IT 219728-94-6P 219728-95-7P 219728-96-8P
219728-97-9P 219728-98-0P 219728-99-1P
219729-00-7P 219729-01-8P 219729-02-9P
219729-03-0P 219729-04-1P 219729-05-2P
219729-06-3P 219729-07-4P 219729-08-5P
219729-09-6P 219729-10-9P 219729-11-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of compds. having energy transfer function and application for determination of DNA base sequencing)

RN 219728-94-6 CAPLUS

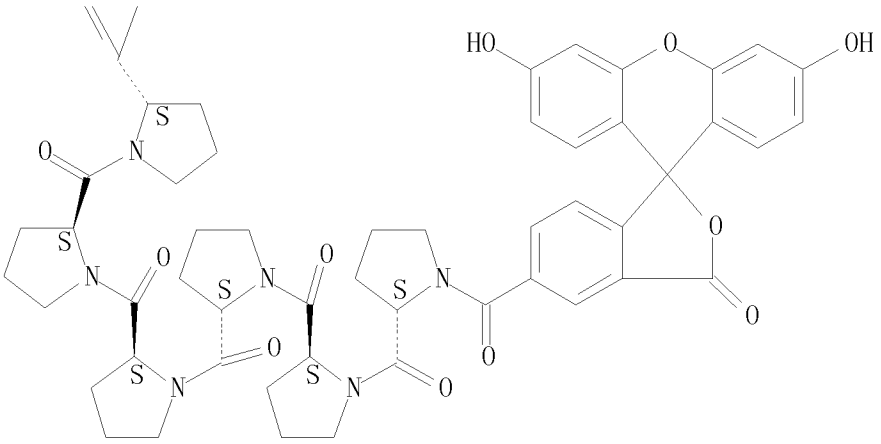
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



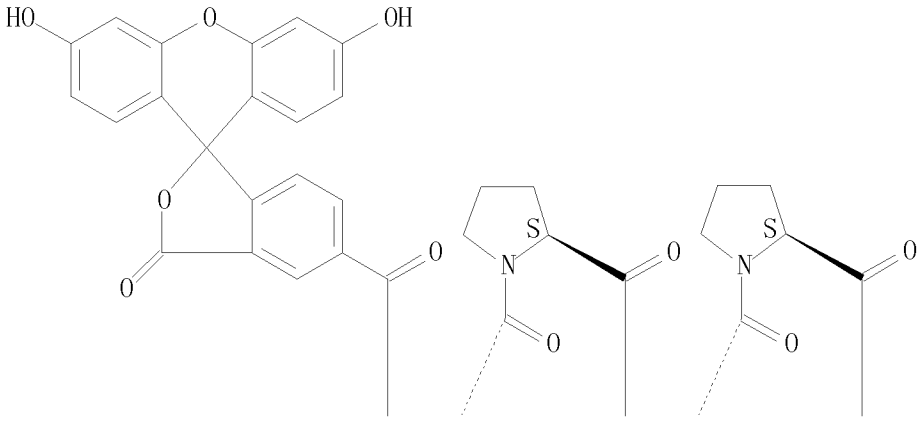
PAGE 2-A



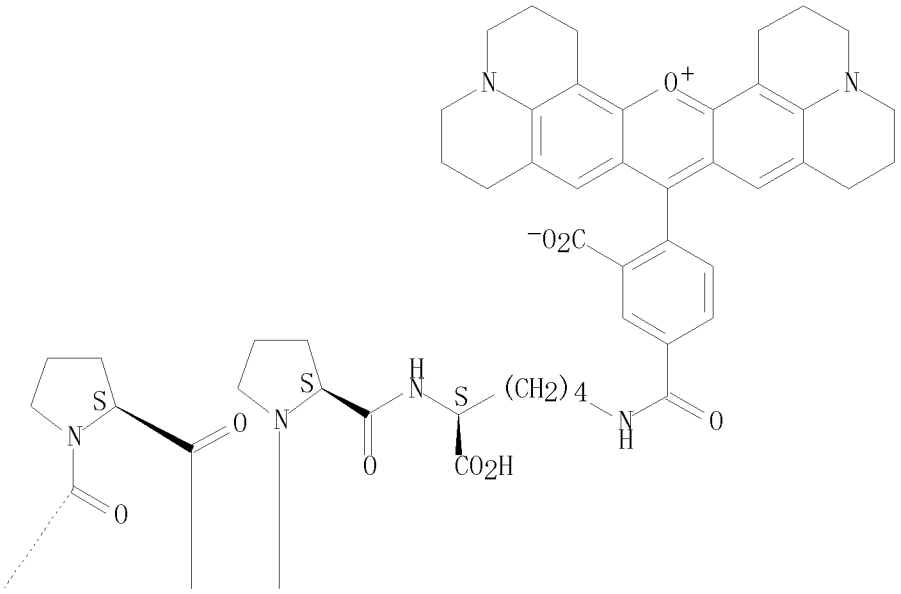
RN 219728-95-7 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-carboxy-4-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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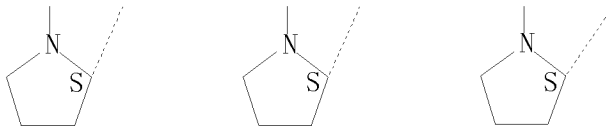

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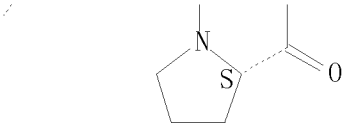
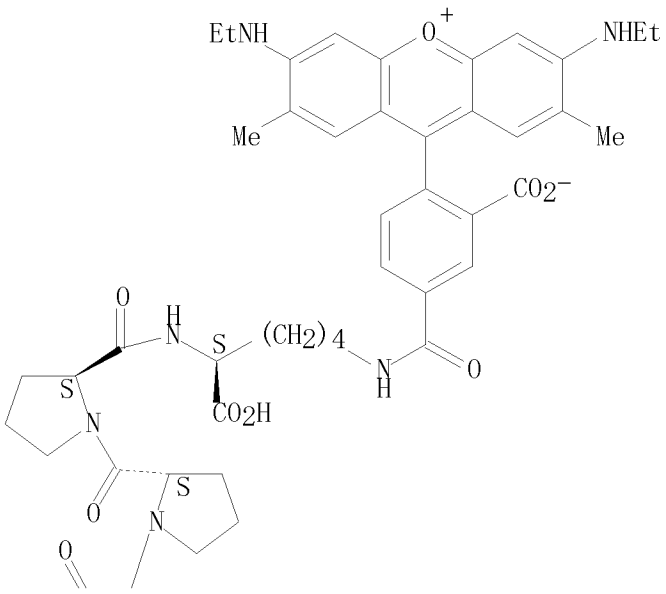


RN 219728-96-8 CAPLUS

CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[4-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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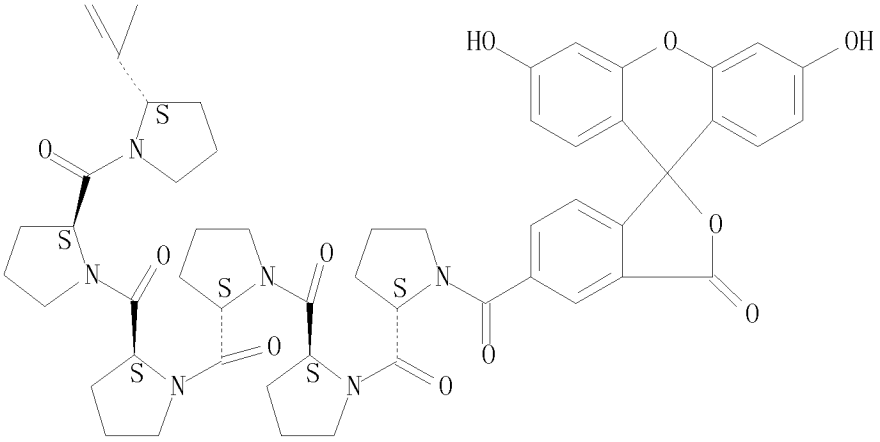
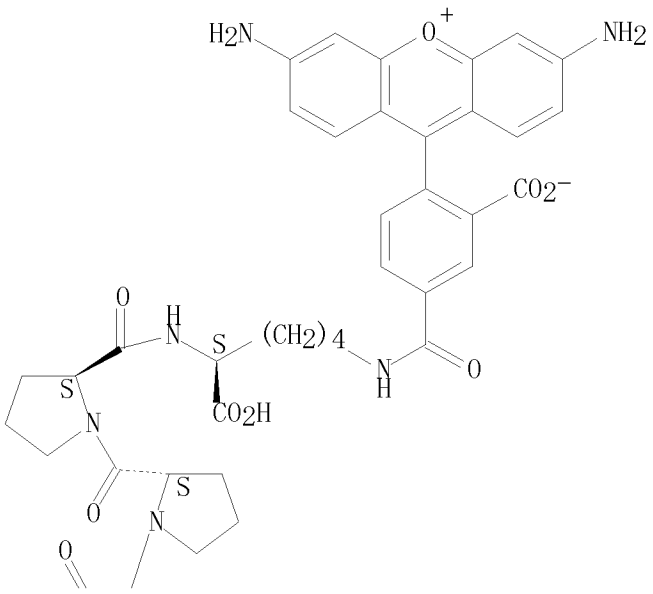


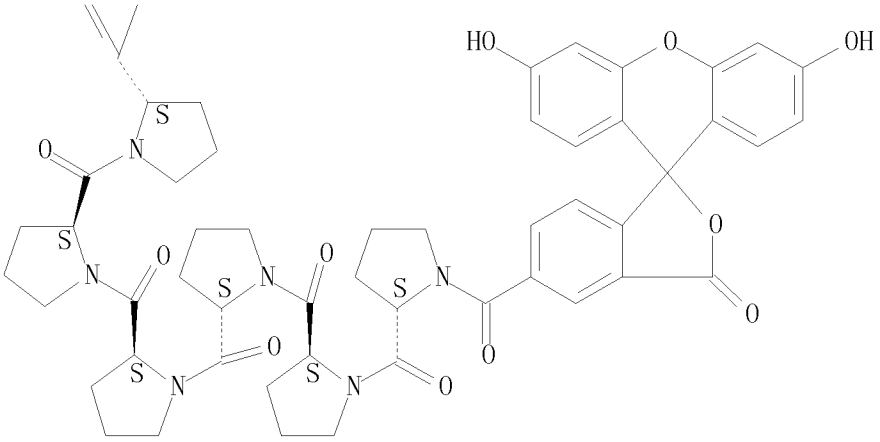
RN 219728-97-9 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-carboxy-4-(3,6-diaminoxanthylium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



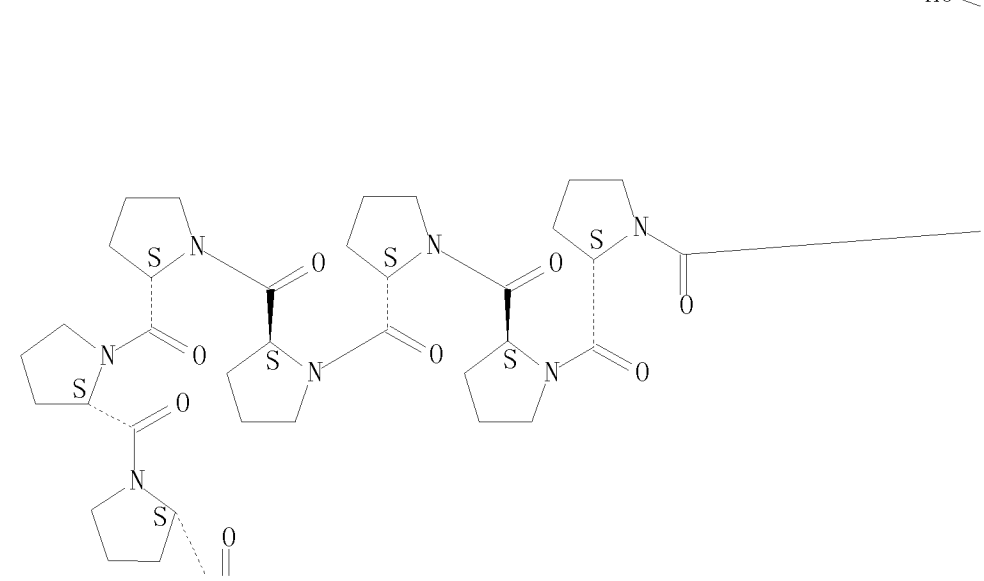
PAGE 2-A



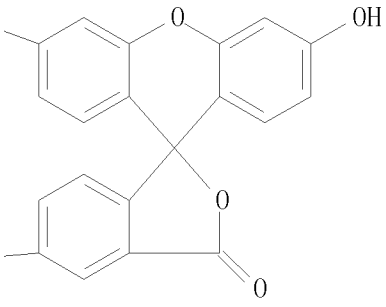
RN 219728-98-0 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

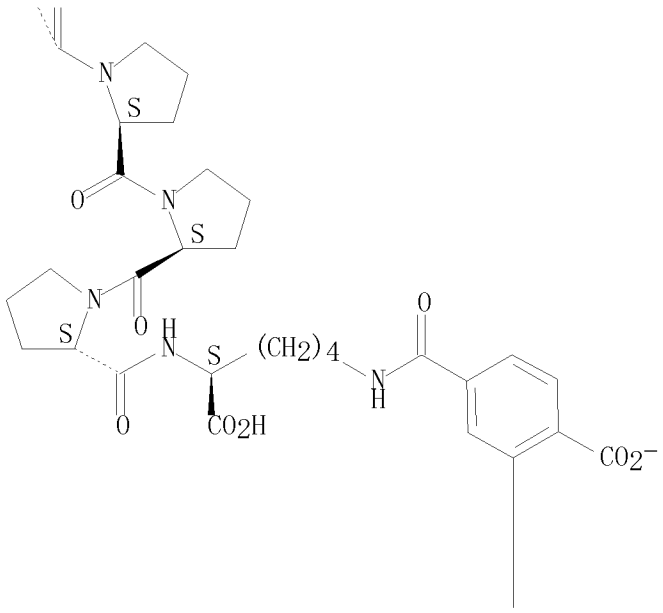
PAGE 1-A



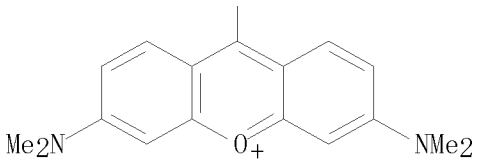
PAGE 1-B



PAGE 2-A



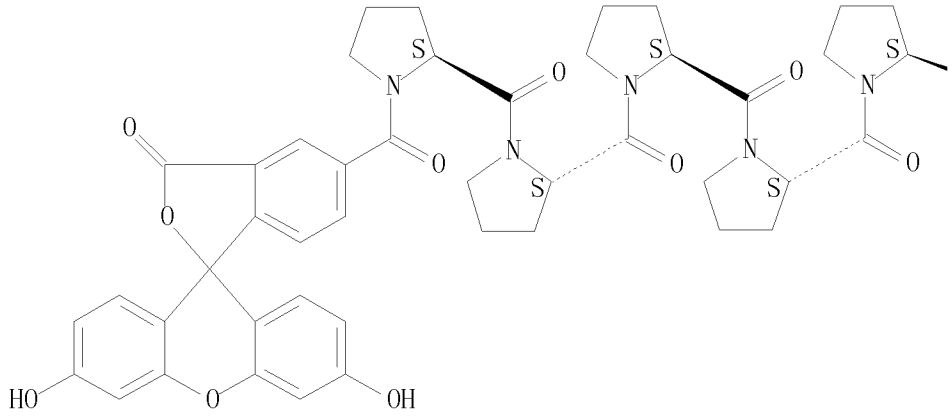
PAGE 3-A



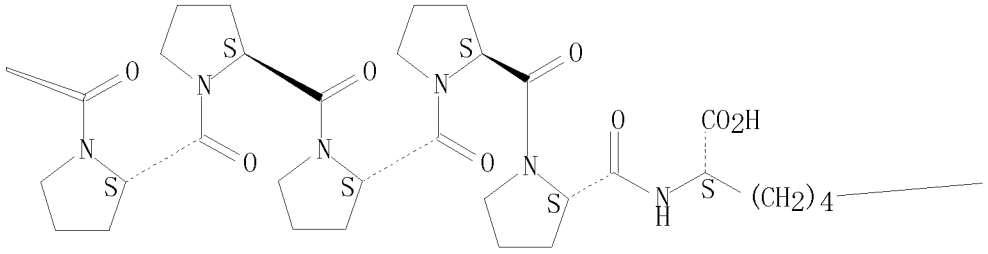
RN 219728-99-1 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[4-carboxy-3-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

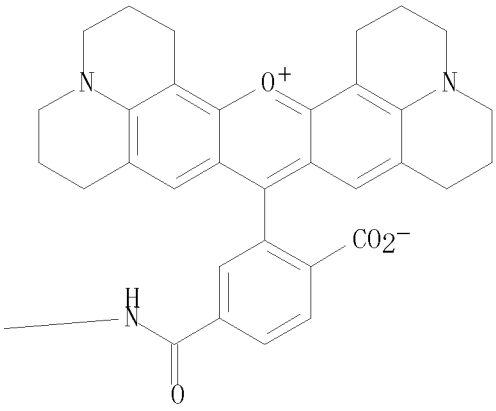
PAGE 1-A



PAGE 1-B



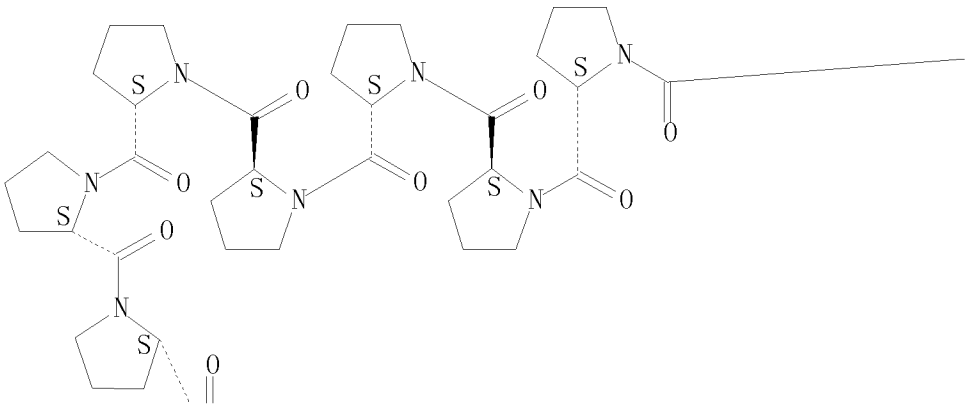
PAGE 1-C



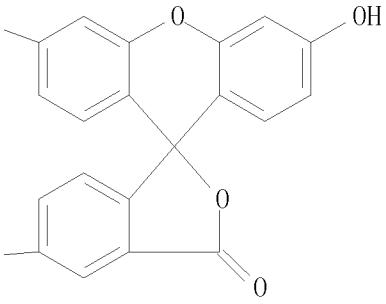
RN 219729-00-7 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

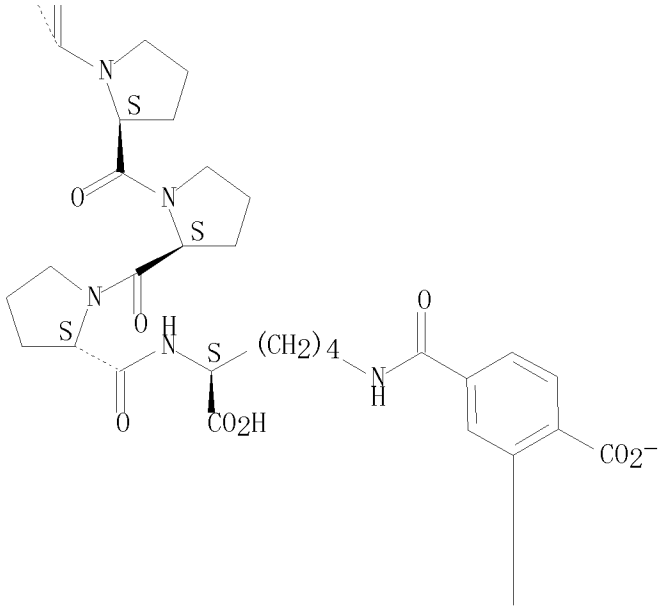
PAGE 1-A



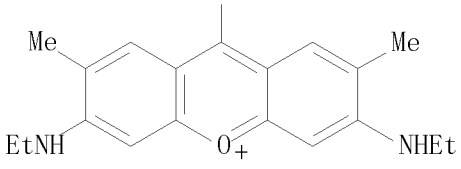
PAGE 1-B



PAGE 2-A



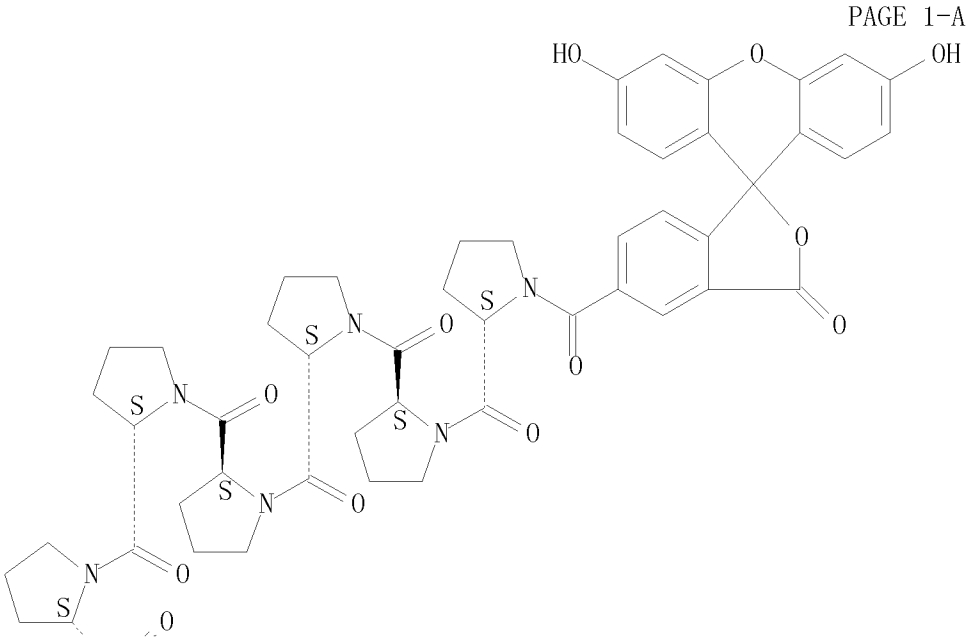
PAGE 3-A



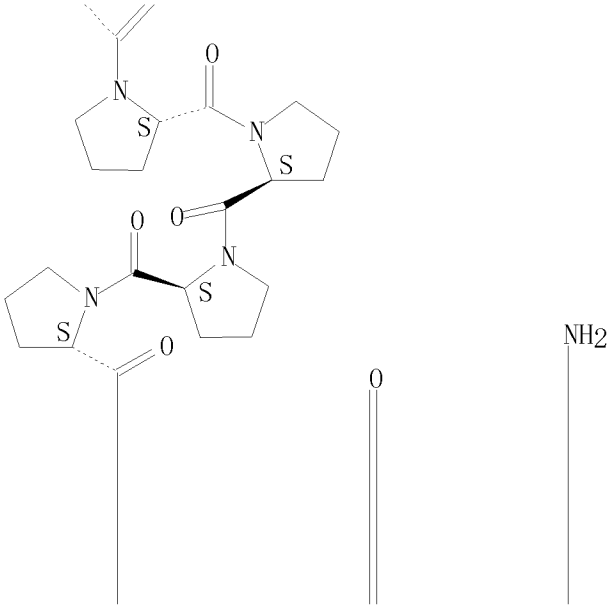
RN 219729-01-8 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-carboxy-4-(3,6-diaminoxanthylium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

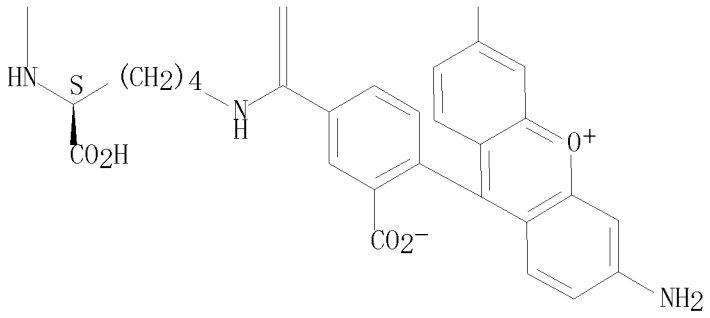
PAGE 1-A



PAGE 2-A



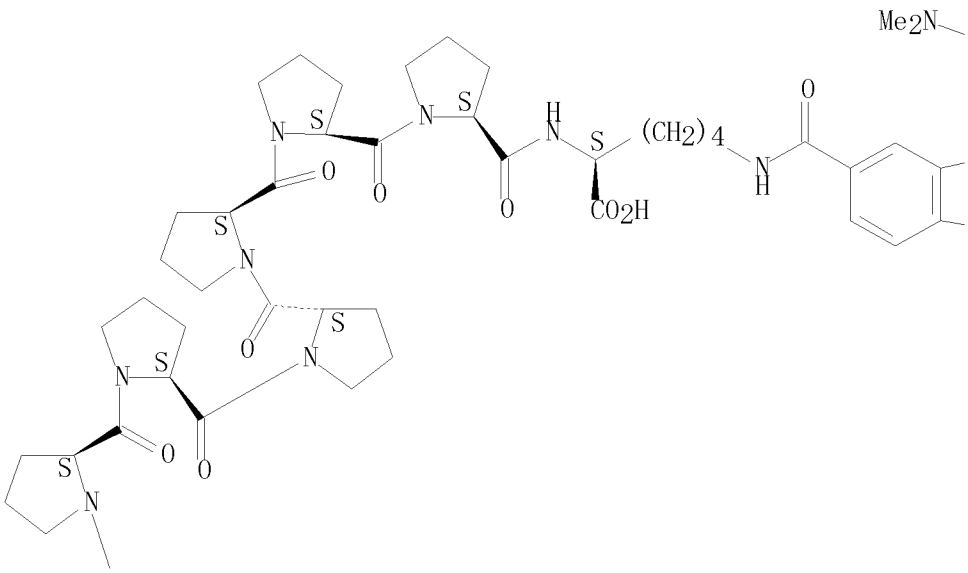
PAGE 3-A



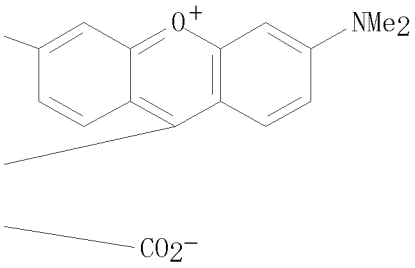
RN 219729-02-9 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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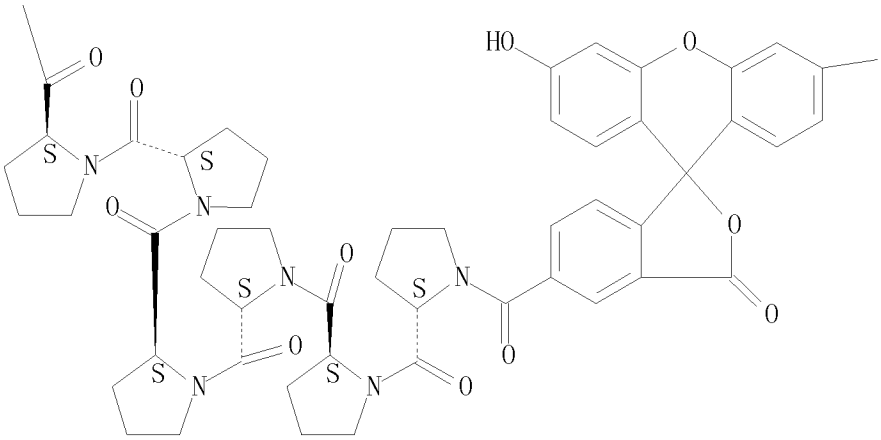


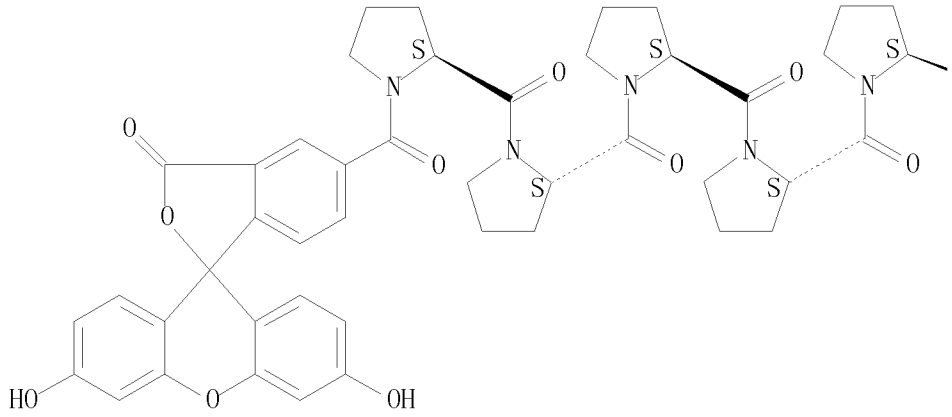
PAGE 2-B

RN 219729-03-0 CAPLUS

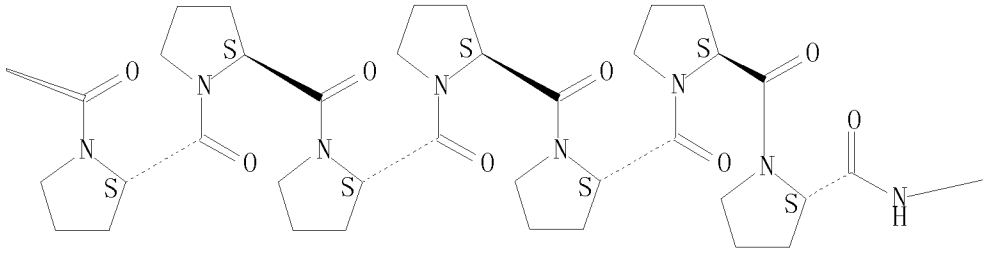
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[4-carboxy-3-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

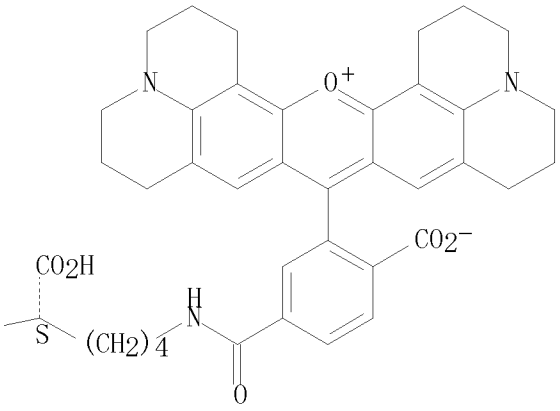
PAGE 1-A



PAGE 1-B



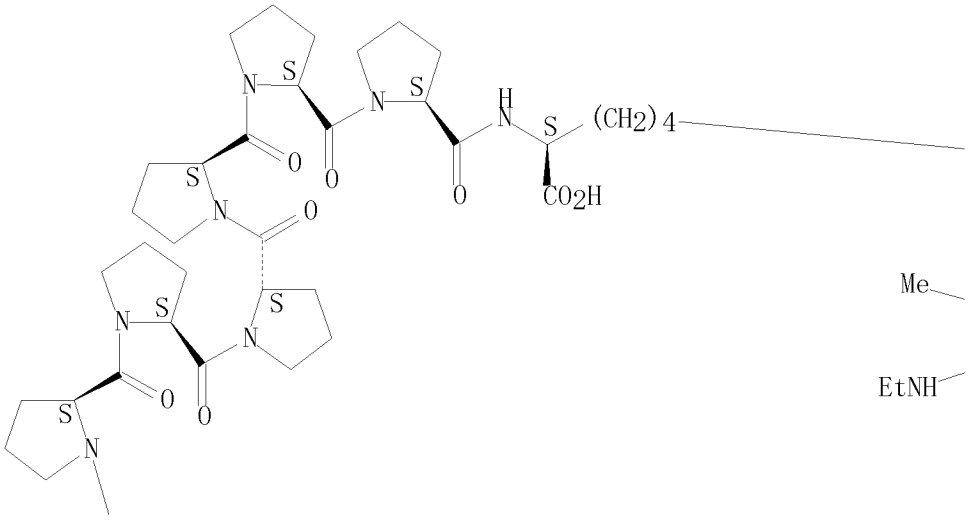
PAGE 1-C



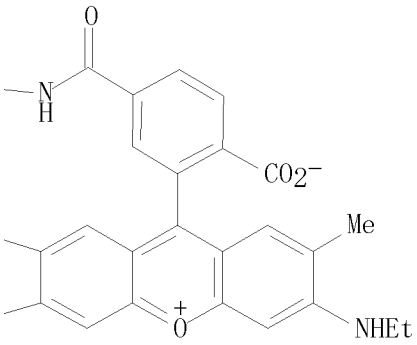
RN 219729-04-1 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

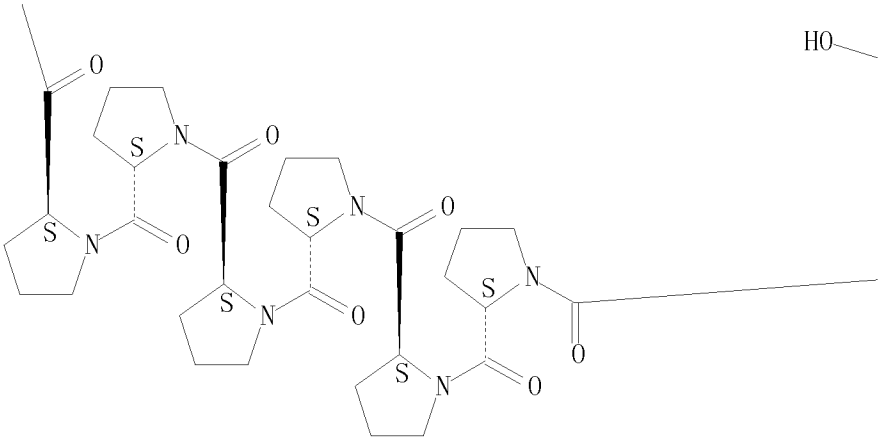
PAGE 1-A



PAGE 1-B



PAGE 2-A



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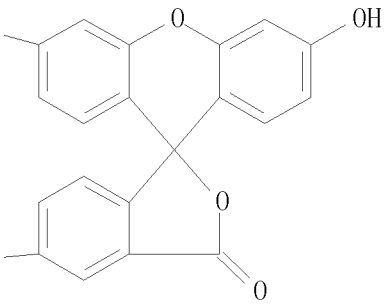
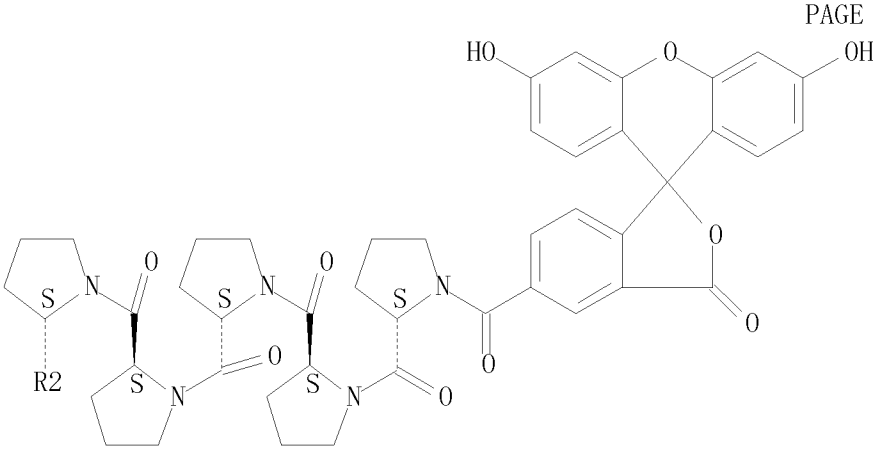


RN 219729-05-2 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-carboxy-

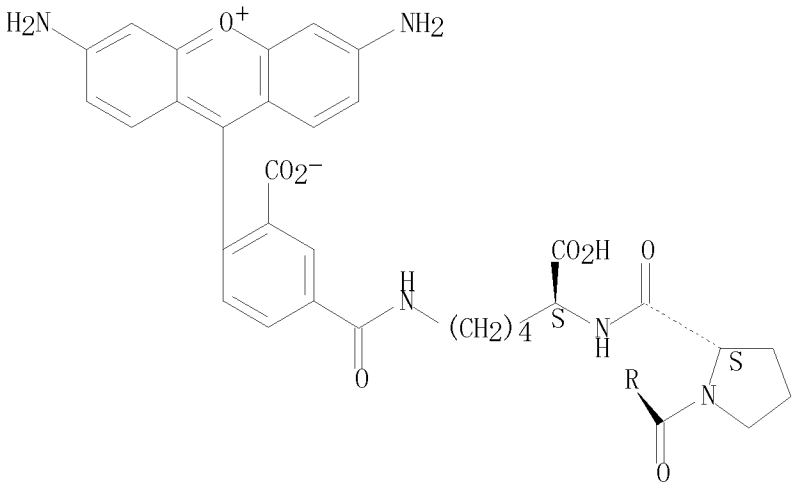
4-(3,6-diaminoxanthylium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

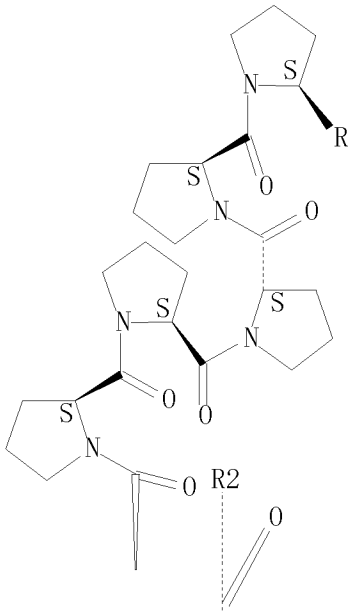
PAGE 1-A



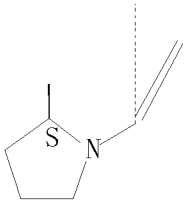
PAGE 2-A



PAGE 3-A



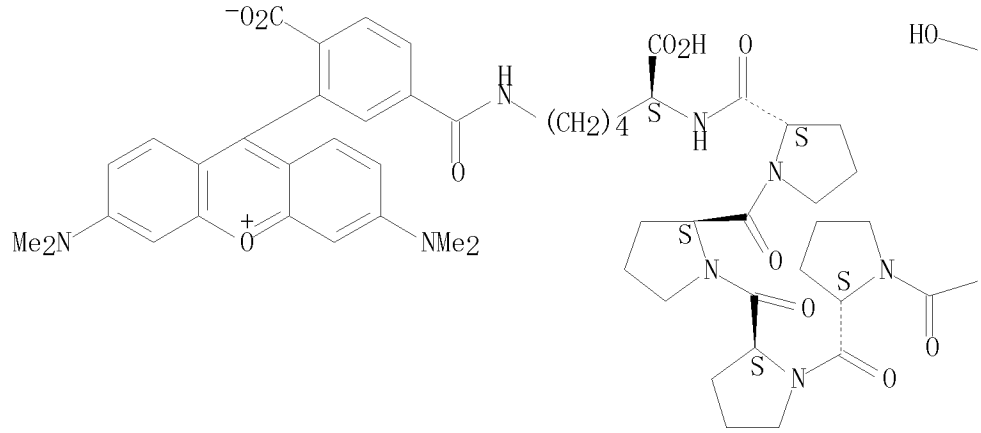
PAGE 4-A



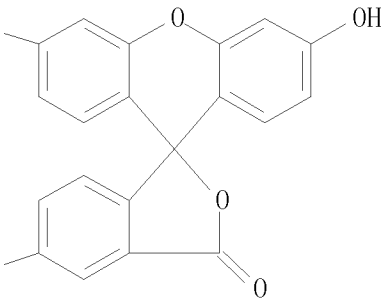
RN 219729-06-3 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



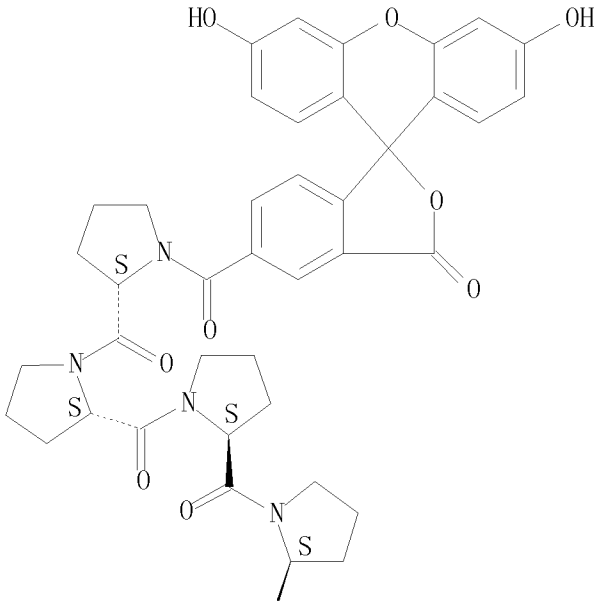
PAGE 1-B



RN 219729-07-4 CAPLUS
CN L-Lysine, 1-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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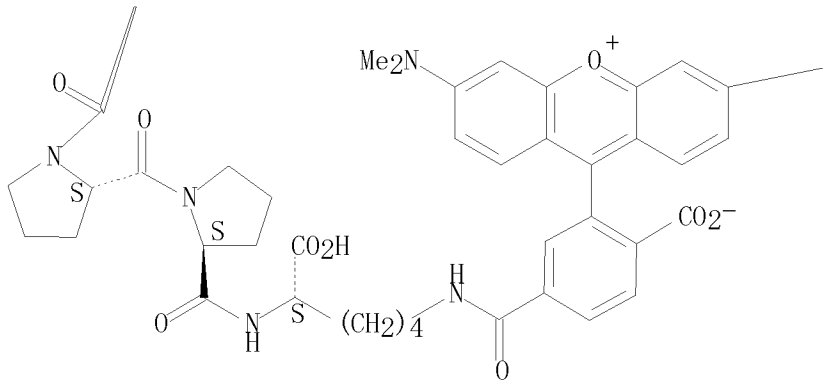

PAGE 2-B

—NMe2

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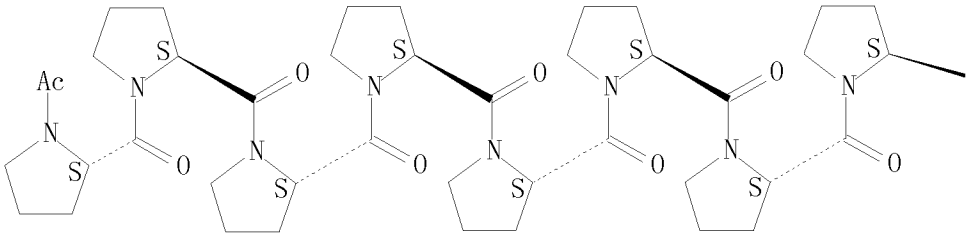
Absolute stereochemistry.

PAGE 1-A



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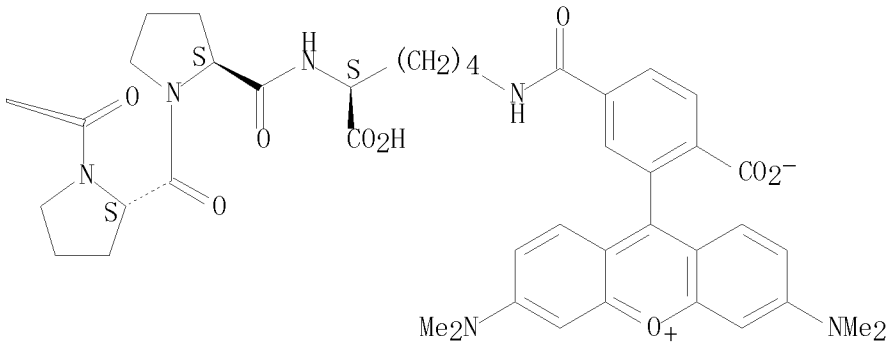
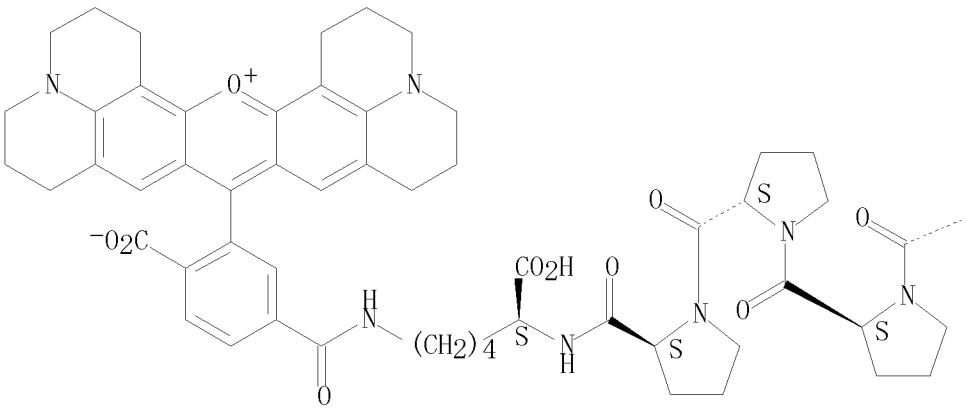


RN 219729-09-6 CAPLUS

CN L-Lysine, 1-acetyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[4-carboxy-3-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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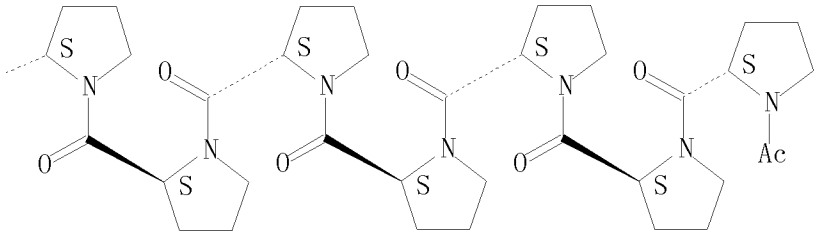
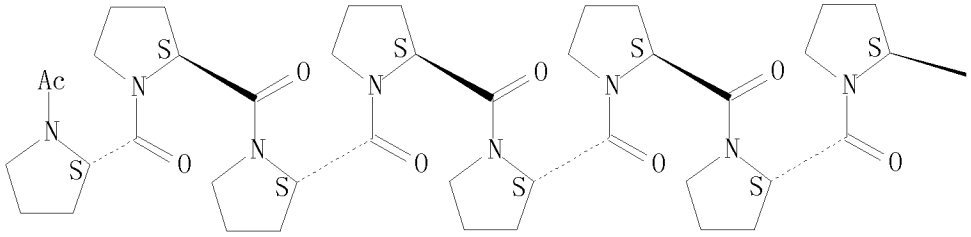


RN 219729-10-9 CAPLUS
CN L-Lysine, 1-acetyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-[3,6-bis(ethylamino)-2,7-dimethylxanthylium-9-yl]-4-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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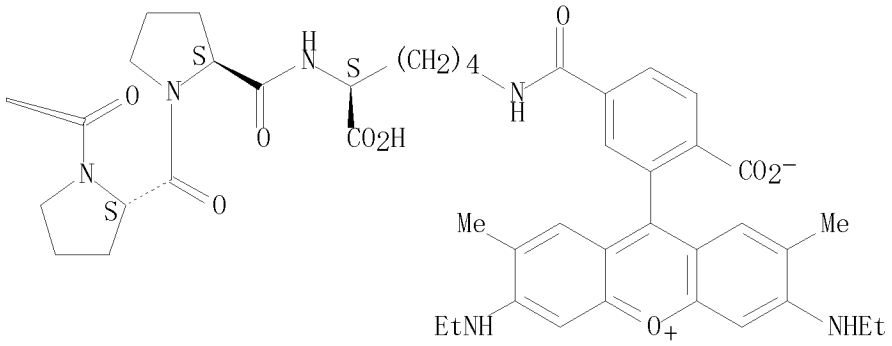
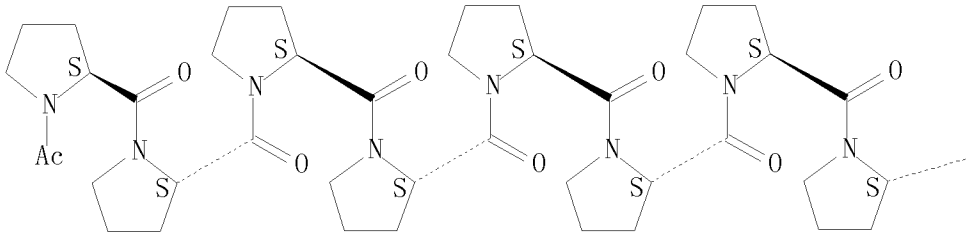


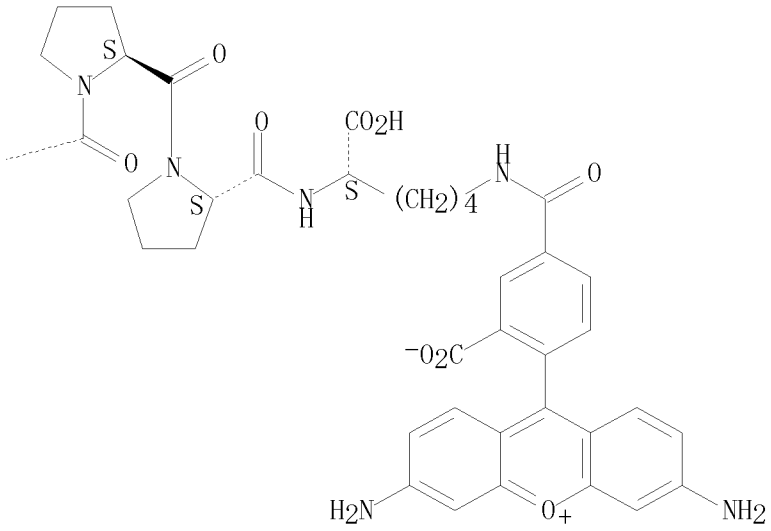
RN 219729-11-0 CAPLUS
CN L-Lysine, 1-acetyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-L-prolyl-N6-[3-carboxy-4-(3,6-diaminoxanthylium-9-yl)benzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 68 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:747616 CAPLUS
DN 130:11982
TI Fluorogenic protease substrates based on dye-dimerization
IN Wei, Ai-Ping; Williams, Michael G.
PA Minnesota Mining and Manufacturing Co., USA
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9850579	A1	19981112	WO 1997-US16579	19970908

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,

UZ, VN, YU, ZW
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9743550	A	19981127	AU 1997-43550	19970908
EP 980440	A1	20000223	EP 1997-941691	19970908
EP 980440	B1	20070801		
R: CH, DE, FR, GB, IT, LI, SE				
CN 1254383	A	20000524	CN 1997-182147	19970908
JP 2002506343	T	20020226	JP 1998-548022	19970908
JP 4065931	B2	20080326		
PRAI US 1997-846828	A	19970501		
WO 1997-US16579	W	19970908		

AB A method of biol. assay comprises the steps of providing an enzyme substrate comprising 2 fluorescence dye groups bound to a peptide, the dye groups being of proximity sufficiently close so as to essentially self-quench fluorescence of the dye groups, wherein self-quenching of fluorescence of the dye groups is effected by dye stacking, and enzymically cleaving the peptide to release the fluorescence dye groups from dye stacking, and producing an increase in fluorescence intensity. A protease substrate I (TMR-Val-Pro-Arg-Gly-Lys-TMR, TMR = tetramethylrhodamine) for use in the method of the invention is also disclosed. For a wide spectrum of excitation frequencies, fluorescence intensity of the cleaved substrate solution is as much as 29-fold that of the intact substrate solution, averaging from 25-28-fold the intensity, for emission wavelengths from 570 to 585 nm, a range easily visible to the human eye. This invention finds use in detection and identification of microorganisms, sterilization assurance, pharmaceutical discovery, enzyme assays, immunoassays, and other biol. assays. Use of the fluorogenic protease substrate I is demonstrated for the detection of Vibrio parahaemolyticus.

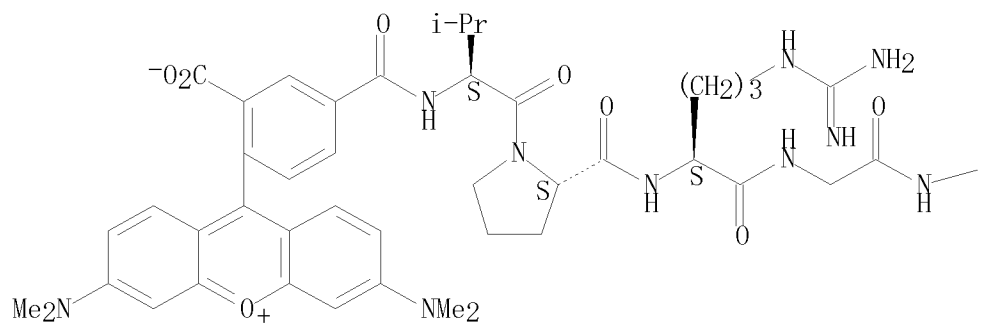
IT 216006-99-4
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(fluorogenic protease substrates based on dye-dimerization)

RN 216006-99-4 CAPLUS

CN L-Lysine, N-[3-carboxy-4-[3,6-bis(dimethylamino)xanthylium-9-yl]benzoyl]-L-valyl-L-prolyl-L-arginylglycyl-N6-[3-carboxy-4-[3,6-bis(dimethylamino)xanthylium-9-yl]benzoyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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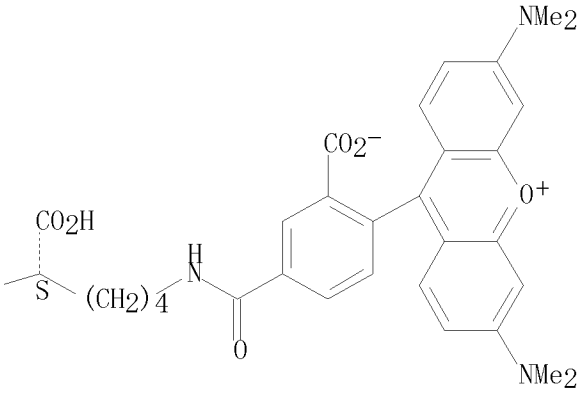

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 69 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:605029 CAPLUS
DN 129:213504
OREF 129:43299a,43302a
TI Protease indicator substrates exhibiting increased fluorescence due to conformational change following cleavage
IN Komoriya, Akira; Packard, Beverly S.
PA Oncoimmunin, Inc., USA
SO PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9837226	A1	19980827	WO 1998-US3000	19980220
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	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6037137	A	20000314	US 1997-802981	19970220
	CA 2280811	A1	19980827	CA 1998-2280811	19980220
	AU 9866567	A	19980909	AU 1998-66567	19980220
	AU 745148	B2	20020314		
	EP 988394	A1	20000329	EP 1998-908564	19980220
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001514492	T	20010911	JP 1998-536778	19980220
	JP 4298796	B2	20090722		
	US 6936687	B1	20050830	US 1999-394019	19990910
	US 20040096926	A1	20040520	US 2001-874350	20010604
	US 7312302	B2	20071225		

	US 20080199898	A1	20080821	US 2007-941766	20071116
	JP 2008167757	A	20080724	JP 2008-21366	20080131
PRAI	US 1997-802981	A	19970220		
	JP 1998-536778	A3	19980220		
	WO 1998-US3000	W	19980220		
	US 1999-394019	A2	19990910		
	WO 2000-US24882	A2	20000911		
	US 2001-874350	A3	20010604		

OS MARPAT 129:213504

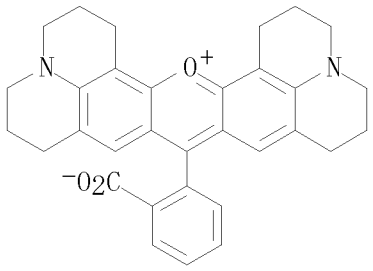
AB The present invention provides for novel reagents whose fluorescence increases in the presence of particular proteases. The reagents comprise a characteristically folded peptide backbone each end of which is conjugated to a fluorophore. When the folded peptide is cleaved, as by digestion with a protease, the fluorophores provide a high intensity fluorescent signal at a visible wavelength. Because of their high fluorescence signal in the visible wavelengths, these protease indicators are particularly well suited for detection of protease activity in biol. samples, in particular in frozen tissue sections. Thus this invention also provides for methods of detecting protease activity in situ in frozen sections.

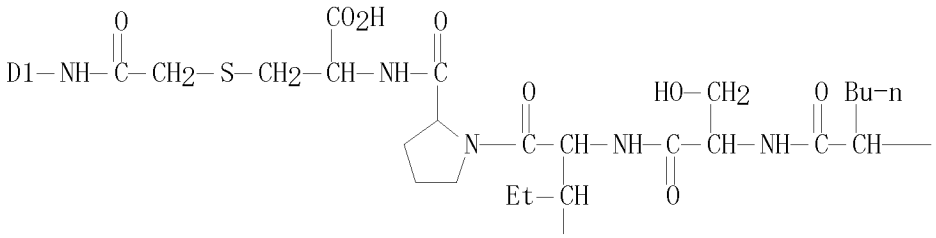
IT 212268-88-7
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(protease indicator substrates exhibiting increased fluorescence due to conformational change following cleavage)

RN 212268-88-7 CAPLUS

CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





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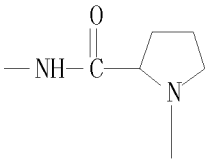
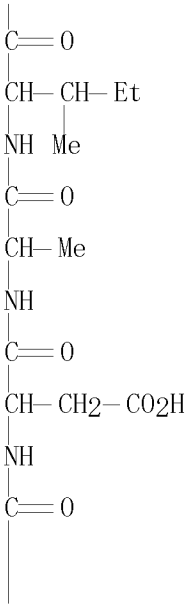


PAGE 2-A

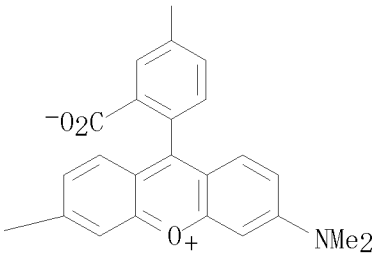
PAGE 2-B



PAGE 3-A

Me_2N

PAGE 3-B



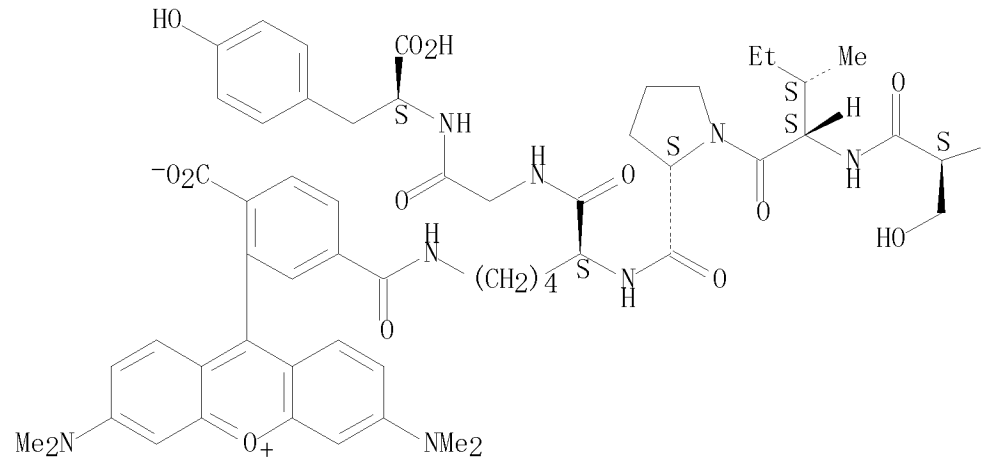
IT 212207-37-9P 212268-91-2P
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process)
(protease indicator substrates exhibiting increased fluorescence due to conformational change following cleavage)

RN 212207-37-9 CAPLUS

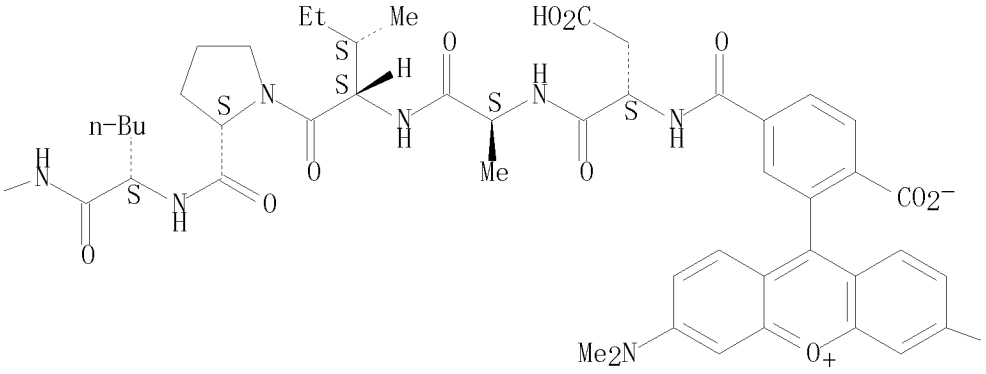
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 1-C

NMe2

RN 212268-91-2 CAPLUS

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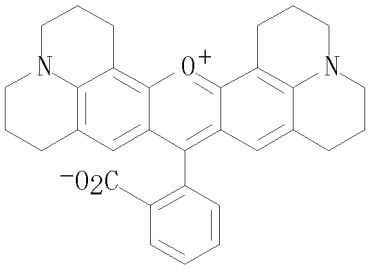
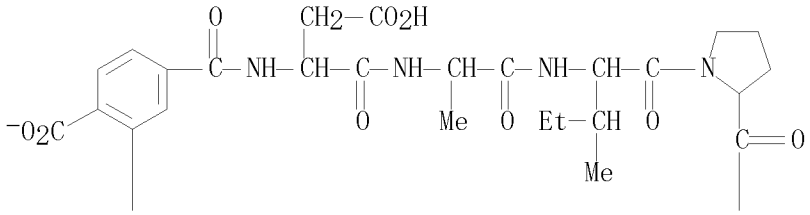
PAGE 1-A





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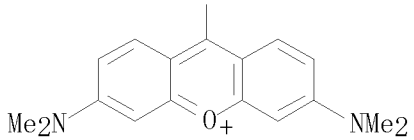
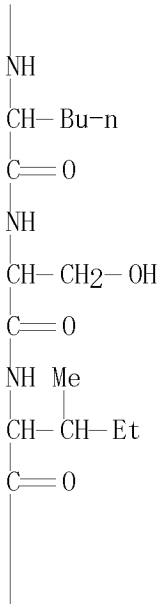
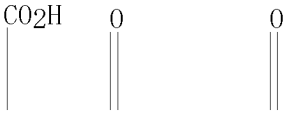
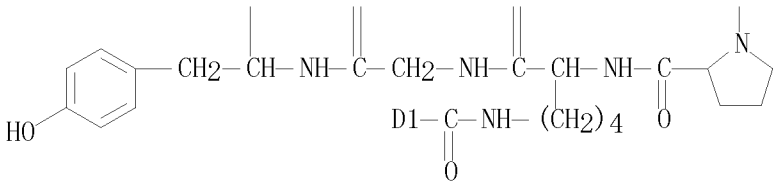






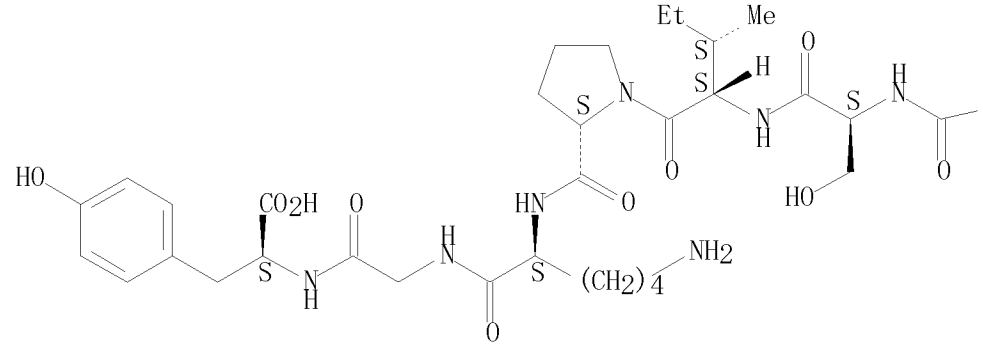
PAGE 3-A



IT 212207-39-1P
RL: ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(protease indicator substrates exhibiting increased fluorescence due to conformational change following cleavage)
RN 212207-39-1 CAPLUS
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-L-lysylglycyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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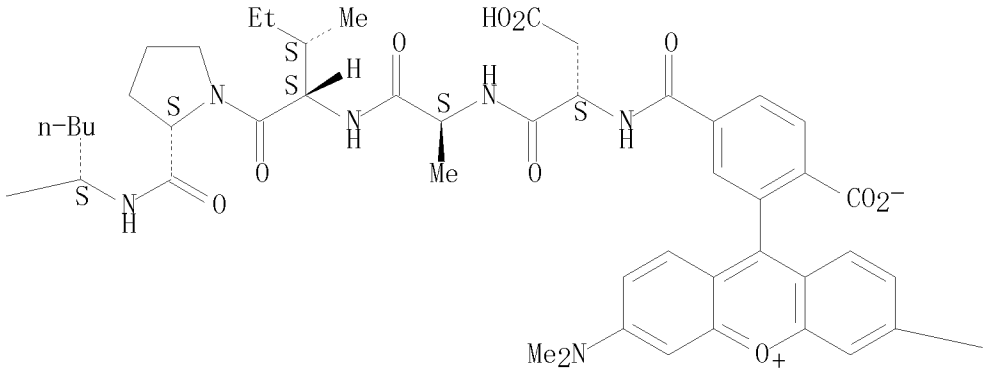

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OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 70 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:599359 CAPLUS
DN 129:212480
OREF 129:43050h,43051a
TI Energy transfer dyes with enhanced fluorescence
IN Lee, Linda G.; Spurgeon, Sandra L.; Rosenblum, Barnett
PA The Perkin Elmer Corp., USA
SO U.S., 83 pp., Cont.-in-part of U. S. Ser. No. 642,330.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5800996	A	19980901	US 1996-726462	19961004
	US 5863727	A	19990126	US 1996-642330	19960503
	US 5847162	A	19981208	US 1996-672196	19960627
	CA 2203494	A1	19971103	CA 1997-2203494	19970423
	CA 2203494	C	20001226		
	CA 2297589	A1	19971103	CA 1997-2297589	19970423
	EP 805190	A2	19971105	EP 1997-303039	19970502
	EP 805190	A3	19980107		
	EP 805190	B1	19991215		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AU 9719995	A	19971120	AU 1997-19995	19970502
	AU 691143	B2	19980507		
	EP 940450	A1	19990908	EP 1999-201120	19970502
	EP 940450	B1	20060802		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AT 187752	T	20000115	AT 1997-303039	19970502
	AT 335051	T	20060815	AT 1999-201120	19970502
	JP 10088124	A	19980407	JP 1997-115920	19970506
	JP 3090626	B2	20000925		
	JP 2000154381	A	20000606	JP 2000-10931	19970506
	JP 2000187036	A	20000704	JP 2000-10932	19970506
	JP 2003274999	A	20030930	JP 2003-28821	19970506
	JP 3499238	B2	20040223		
	JP 2003221515	A	20030808	JP 2002-280013	19970521

	US 6335440	B1	20020101	US 1999-272097	19990318
	JP 2000154332	A	20000606	JP 2000-10933	20000119
	JP 3592173	B2	20041124		
	US 20020086985	A1	20020704	US 2001-14743	20011029
	US 6849745	B2	20050201		
	JP 2004043819	A	20040212	JP 2003-288285	20030806
	JP 2004068023	A	20040304	JP 2003-288286	20030806
	US 20050069912	A1	20050331	US 2004-788836	20040226
	US 7169939	B2	20070130		
	US 20050112781	A1	20050526	US 2004-788660	20040226
	US 7550570	B2	20090623		
	JP 2004250713	A	20040909	JP 2004-136932	20040430
	JP 2004305217	A	20041104	JP 2004-152623	20040521
	US 20070154924	A1	20070705	US 2006-617667	20061228
	US 7423140	B2	20080909		
	US 20070161026	A1	20070712	US 2006-617660	20061228
	US 7399854	B2	20080715		
	US 20070161027	A1	20070712	US 2006-617665	20061228
	US 7388092	B2	20080617		
	US 20070154925	A1	20070705	US 2006-618679	20061229
	US 7449298	B2	20081111		
	US 20070154926	A1	20070705	US 2006-618683	20061229
	US 7452672	B2	20081118		
	US 20070154927	A1	20070705	US 2006-618693	20061229
	US 20070207477	A1	20070906	US 2006-618688	20061229
	US 7449149	B2	20081111		
	US 20070212709	A1	20070913	US 2006-618663	20061229
	US 7432058	B2	20081007		
	US 20080268509	A1	20081030	US 2006-618667	20061229
	US 20090118485	A1	20090507	US 2008-205817	20080905
	JP 2009046685	A	20090305	JP 2008-241854	20080919
	JP 2009073838	A	20090409	JP 2008-249238	20080926
PRAI	US 1996-642330	A2	19960503		
	US 1996-672196	A2	19960627		
	US 1996-726462	A	19961004		
	CA 1997-2203494	A3	19970423		
	EP 1997-303039	A3	19970502		
	JP 1997-115920	A3	19970506		
	JP 2000-10931	A3	19970506		
	JP 2000-10932	A3	19970506		
	JP 1998-502974	A3	19970521		
	JP 2002-280013	A3	19970521		
	US 1998-46203	A1	19980323		
	US 1999-272097	A1	19990318		
	US 2000-578920	A1	20000525		
	US 2001-14743	A1	20011029		
	JP 2003-288285	A3	20030806		
	US 2004-788836	A1	20040226		
	US 2006-617667	A1	20061228		
OS	MARPAT 129:212480				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers facilitate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor

dye in an energy transfer fluorescent dye has the general structure R21Z1C(O)R22R28 where R21 is a C1-5 alkyl attached to the donor dye, C(O) is a carbonyl group, Z1 is either NH, S or O, R22 is a substituent which includes an alkene, diene, alkyne, a five and six membered ring having at least one unsatd. bond or a fused ring structure which is attached to the carbonyl carbon, and R28 includes a functional group which attaches the linker to the acceptor dye. One example dye prepared was I.

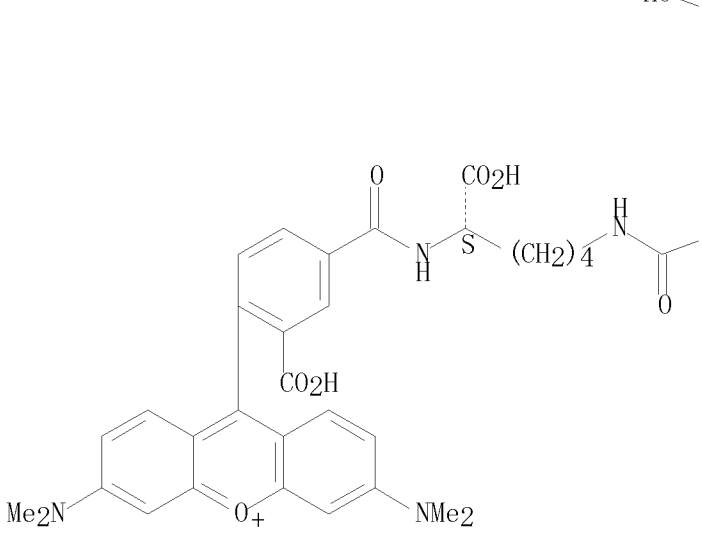
IT 212390-03-9P
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(energy transfer dyes with enhanced fluorescence)

RN 212390-03-9 CAPLUS

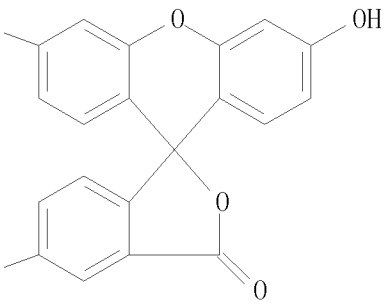
CN Xanthylium, 9-[2-carboxy-4-[[[(1S)-1-carboxy-5-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]pentyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

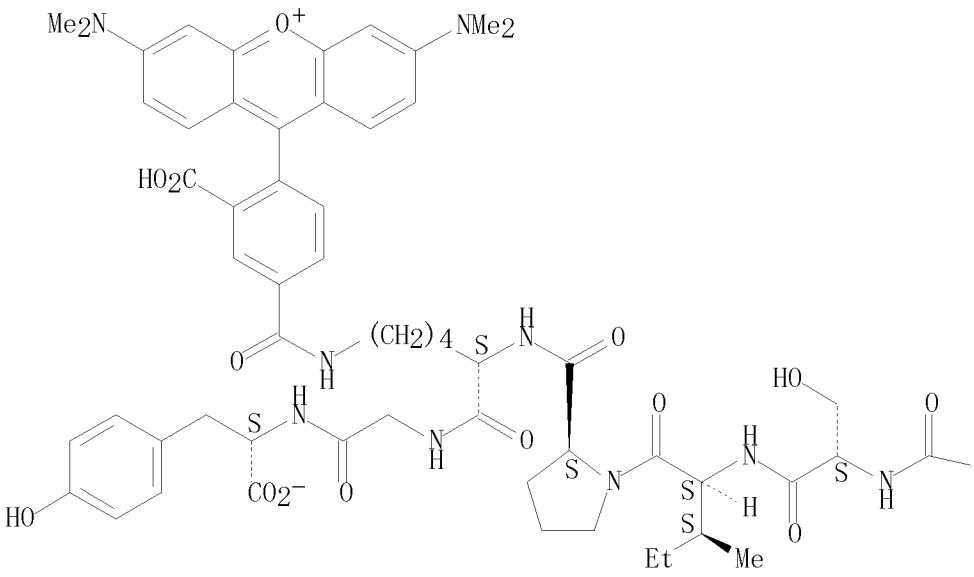


OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 71 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:103406 CAPLUS
DN 128:254447
OREF 128:50299a,50302a
TI Intramolecular excitonic dimers in protease substrates: Modification of the backbone moiety to probe the H-dimer structure
AU Packard, Beverly Z.; Komoriya, Akira; Nanda, Vikas; Brand, Ludwig
CS OncoImmunin Inc., College Park, MD, 20742, USA
SO Journal of Physical Chemistry B (1998), 102(10), 1820-1827
CODEN: JPCBFK; ISSN: 1089-5647
PB American Chemical Society
DT Journal
LA English
AB NorFES (DAIPN1SIPKGY, N1 = norleucine) is an undecapeptide that contains a recognition sequence and cleavage site for the serine protease elastase. When NorFES is doubly labeled with a variety of fluorophores on opposite sides of this amino acid sequence, the fluorescence is quenched due to formation of intramol. ground-state dimers. Although the spectral characteristics of these dimers are predictable by exciton theory, influence of the peptide backbone on H-dimer formation is less well understood. Specifically, factors that modify the attractive forces between and orientation of dyes are not well-characterized. Thus, by varying the dye linker moieties, it was sought to evaluate the thermodn. parameters for intramol. H-type dye-dye association and the structures of these dimers. Data is presented from a series of homo-doubly labeled NorFES derivs. that differ by the addition of one or two 6-aminohexanoic acids to the peptide backbone. By comparing absorption and fluorescence properties of these substrates as a function of temperature, it was examined how such addns. could modify dimerization; the free energy of activation (ΔG.thermod.) for intramol. dimer disruption of each substrate was calculated To gain further insight into dye-dye orientation, a NorFES substrate modified to facilitate intramol. H-dimerization was synthesized with different geometric dye isomers. The data show that length and conformation of the peptide plus linker as well as stereochem. of dye-peptide conjugation play important roles in intramol. ground-state complexation. The factors that influence the spectral properties of intramol. H-dimerization support earlier proposed model for H-dimers in NorFES peptides.
IT 205176-31-4 205176-32-5
RL: PRP (Properties)
(modification of the backbone moiety to probe the H-dimer structure of intramol. excitonic dimers in protease substrates)
RN 205176-31-4 CAPLUS
CN L-Tyrosine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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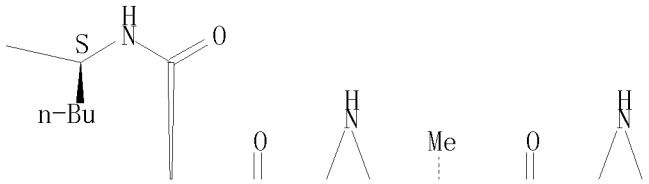
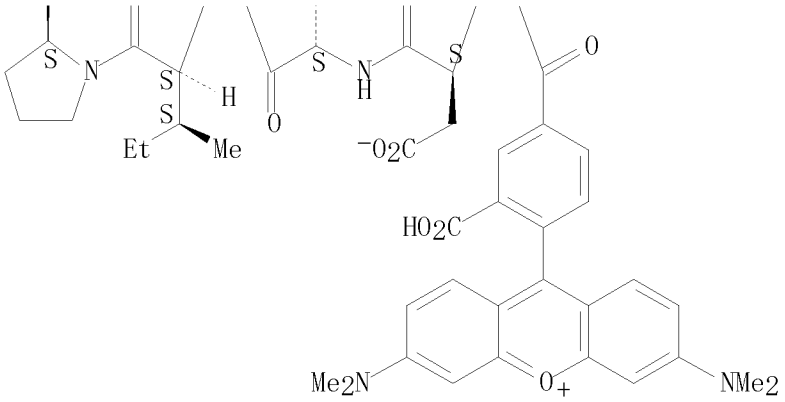


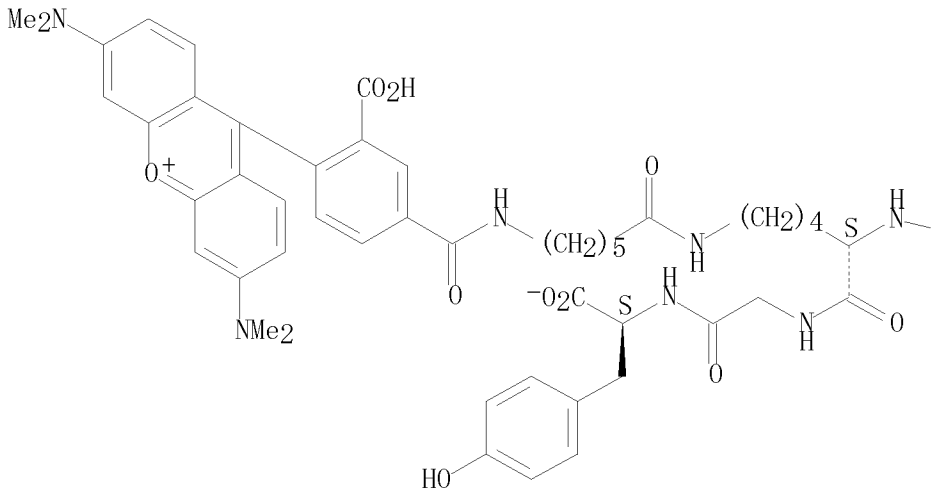
PAGE 2-B



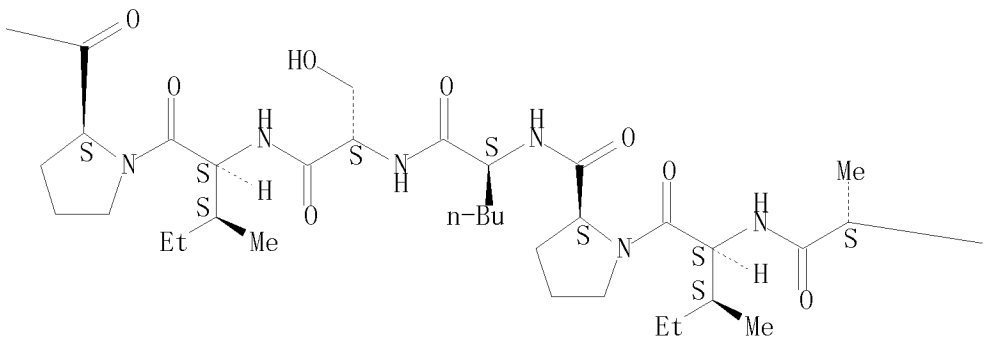
RN 205176-32-5 CAPLUS
CN L-Tyrosine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[6-[[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]amino]-1-oxohexyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

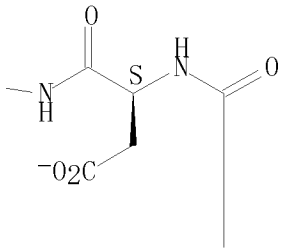
PAGE 1-A



PAGE 1-B

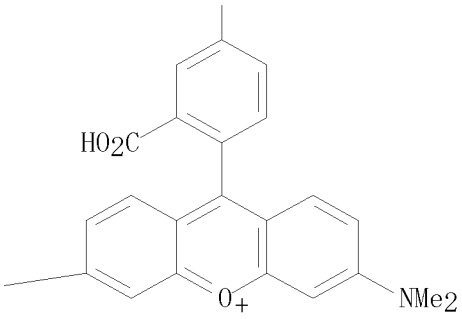


PAGE 1-C



PAGE 2-B

PAGE 2-C



OSC.G 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 72 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:94592 CAPLUS
DN 128:177555
OREF 128:34939a,34942a
TI Fluorophor double-labeled peptides for detection of protease in biological samples
IN Komoriya, Akira; Packard, Beverly S.
PA OncoImmunin, Inc., USA
SO U.S., 39 pp., Cont.-in-part of U.S. 5,605,809.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5714342	A	19980203	US 1995-549008	19951027
	US 5605809	A	19970225	US 1994-331383	19941028
	CA 2203758	A1	19960509	CA 1995-2203758	19951027
	AT 323779	T	20060515	AT 1995-938296	19951027
PRAI	US 1994-331383	A2	19941028		

OS MARPAT 128:177555
AB The present invention provides for novel reagents whose fluorescence increases in the presence of particular proteases. The reagents comprise a characteristically folded peptide backbone each end of which is conjugated to a fluorophore. When the folded peptide is cleaved, as by digestion with a protease, the fluorophores provide a high intensity

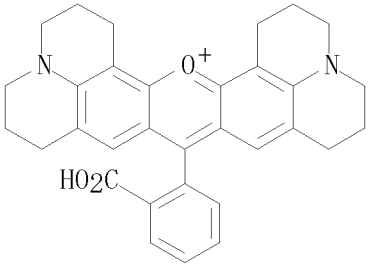
fluorescent signal at a visible wavelength. Because of their high fluorescence signal in the visible wavelengths, these protease indicators are particularly well suited for detection of protease activity in biol. samples, in particular in frozen tissue sections. Thus this invention also provides for methods of detecting protease activity in situ in frozen sections. Many protease inhibitors containing carboxytetramethylrhodamine and rhodamine x acetamide were prepared and tested for their suitability as substrates for elastase. Peptide backbones doubly labeled with a single fluorophore also displayed fluorescence quenching and were suitable as substrates. The latter were used for fluorescence microscopy of fixed epidermal carcinoma cell line A431.

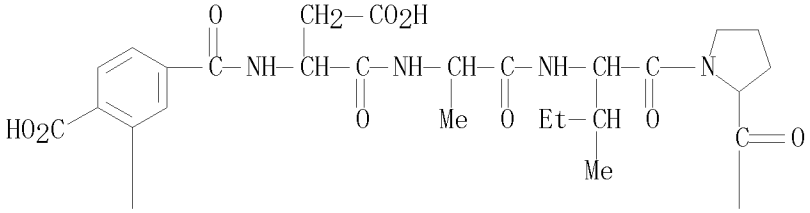
IT 203116-56-7P 203116-57-8P
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(fluorophor double-labeled peptides for detection of protease in biol. samples)

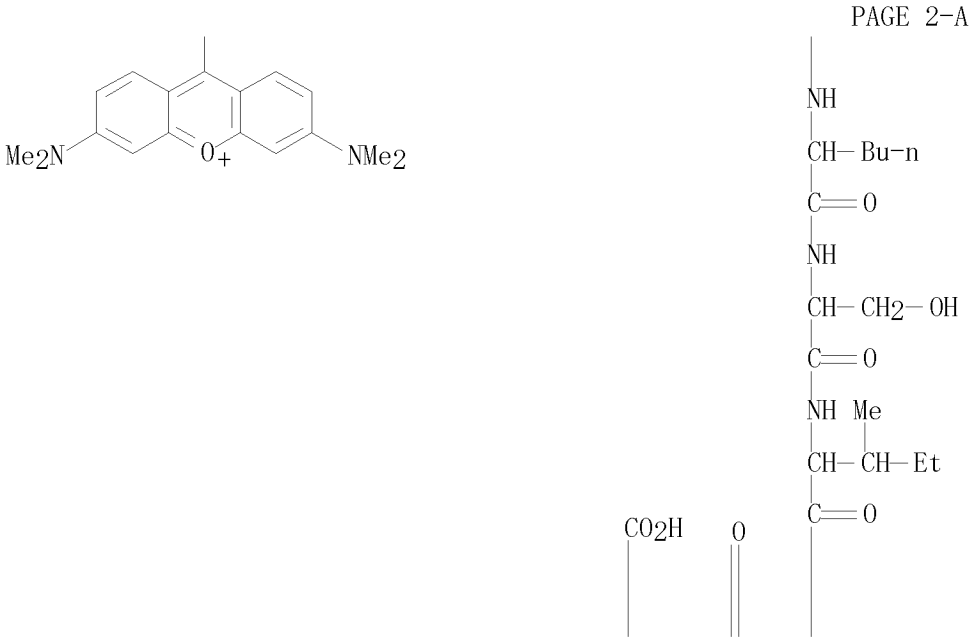
RN 203116-56-7 CAPLUS

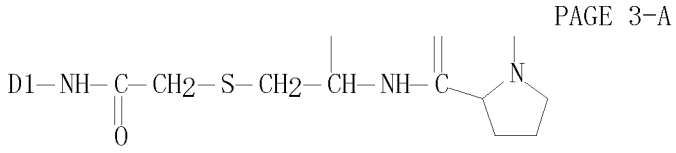
CN L-Cysteine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



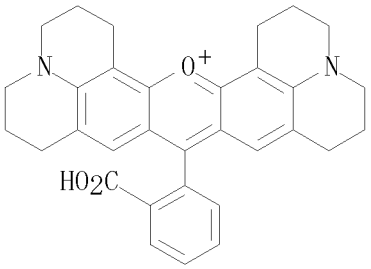


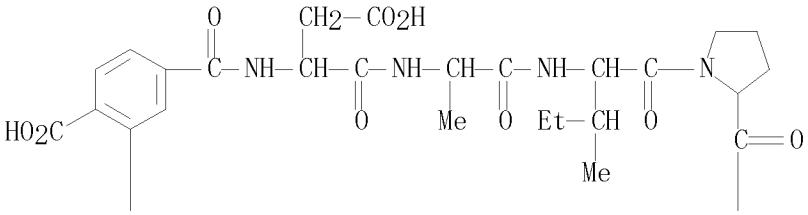




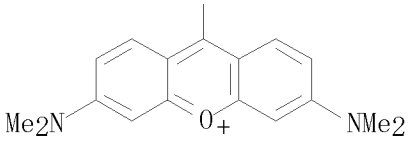
RN 203116-57-8 CAPLUS
CN L-Cysteine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-methionyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

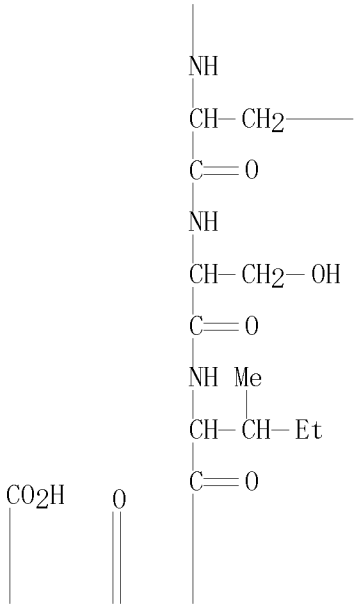
PAGE 1-A



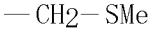


PAGE 2-A

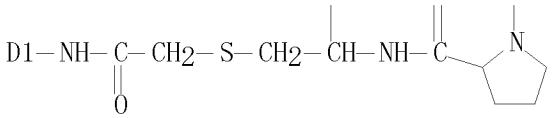




PAGE 2-B



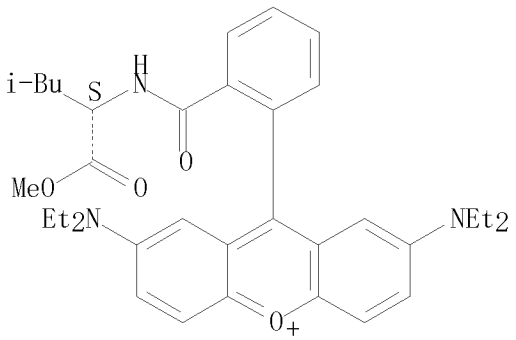
PAGE 3-A



OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 73 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:84174 CAPLUS
DN 128:202567
OREF 128:39995a,39998a
TI Colon cancer diagnosis using fluorescence spectroscopy and fluorescence imaging technique
AU Yova, D.; Atlamazoglou, V.; Davaris, P.; Kavantzas, N.; Loukas, S.
CS Department of Electrical Engineering & Computing, Applied Biophysics and Biomedical Engineering Laboratory, National Technical University of Athens, Athens, 157 73, Greece
SO Proceedings of SPIE-The International Society for Optical Engineering (1997), 3197(Optical Biopsies and Microscopic Techniques II), 4-15
CODEN: PSISDG; ISSN: 0277-786X
PB SPIE-The International Society for Optical Engineering
DT Journal
LA English
AB It is well known that fluorescence spectroscopy can provide information about the differences in the concentration of chromophores in healthy and cancerous tissues. The tumor detection potential can be enhanced by using exogenous fluorescent agents with selective accumulation in cancerous tissue. In this study healthy and cancerous human colon tissue samples were obtained after colon surgery. Excitation - Emission Matrixes were collected using a fluorescence spectrometer. The optimum excitation wavelength was 340 nm. After the acquisition of autofluorescence spectra, the samples were incubated in a solution of 4 μg/mL of Rhodamine analogs. Rhodamine B, Rhodamine 6G and three recently synthesized analogs, were used. For the acquisition of fluorescence images, an endoscopic imaging system was developed. Fluorescence imaging with the concomitant use of Rhodamine analogs revealed a remarkable differentiation of cancerous from healthy colonic mucosa.
IT 203862-97-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(colon cancer diagnosis using fluorescence spectroscopy and fluorescence imaging technique)
RN 203862-97-9 CAPLUS
CN Xanthylium, 2,7-bis(diethylamino)-9-[2-[[[(1S)-1-(methoxycarbonyl)-3-methylbutyl]amino]carbonyl]phenyl]-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 74 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1997:476258 CAPLUS
DN 127:78231
OREF 127:14897a,14900a
TI Fluorescent derivatives of paclitaxel and docetaxel with antineoplastic activity, method for producing them and their applications
IN Amat Guerri, Francisco; Souto, Andre; Acuna Fernandez, Alberto Ulises; Andreu Morales, Jose Manuel; Barasoain Blasco, M. Isabel; Abal, Miguel
PA Consejo Superior Investigaciones Cientificas, Spain
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA Spanish
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9719938	A1	19970605	WO 1996-ES231	19961129
	W: CA, JP, MX, NO, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	ES 2105983	A1	19971016	ES 1995-2361	19951129
	ES 2105983	B1	19980701		
	ES 2121549	A1	19981116	ES 1996-2522	19961129
	ES 2121549	B1	19990616		
PRAI	ES 1995-2361	A	19951129		
	ES 1996-2522	A	19961129		

AB Intensively fluorescent derivs. have been synthesized from a substance used at present as anticancer (chemotherapy) agent, against ovarian and mammal tumors, and other tumors. Said derivs. enable to visualize the cellular target of said drug, since the derivatization does not modify the biol. activity. There is no existing compound which has the solubility, activity and fluorescence characteristics of the compds. disclosed in the present invention. Said derivs. may be used as fluorescence microscopy colorants specific to microtubules of the cytoskeleton in cells and other living organisms. Said derivs. have many applications in the anal. of cell anatomy and in clin. diagnosis.
IT 191930-57-1P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP

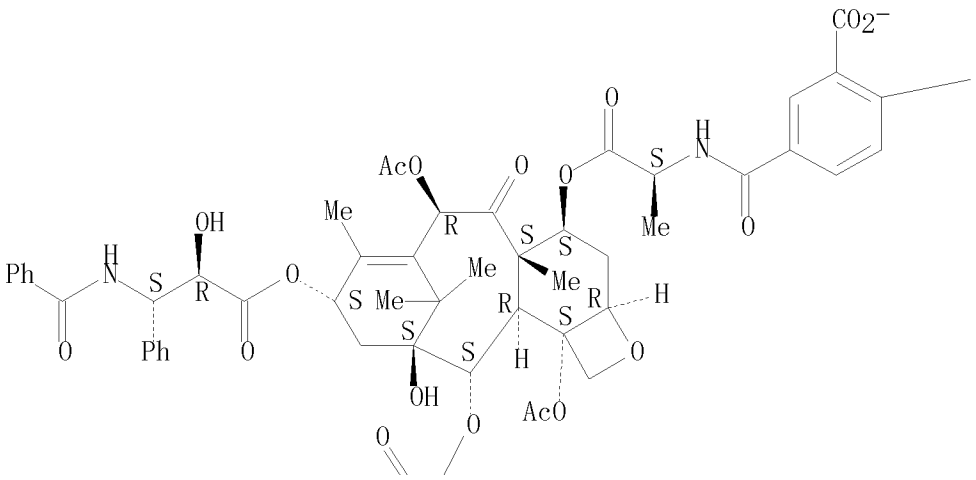
(Preparation); USES (Uses)
(applications of fluorescent derivs. of paclitaxel and docetaxel with antineoplastic activity and a method for producing them)

RN 191930-57-1 CAPLUS

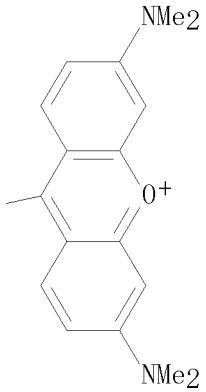
CN Xanthylium, 9-[4-[[[(1S)-2-[[(2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-6,12b-bis(acetyloxy)-9-[(2R,3S)-3-(benzoylamino)-2-hydroxy-1-oxo-3-phenylpropoxy]-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-4-yl]oxy]-1-methyl-2-oxoethyl]amino]carbonyl]-2-carboxyphenyl]-3,6-bis(dimethylamino)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

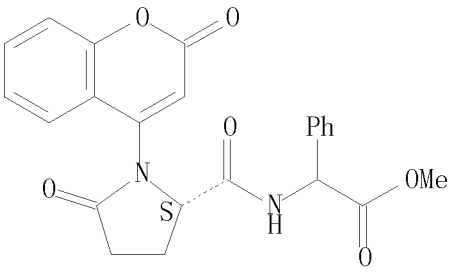


PAGE 2-A

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

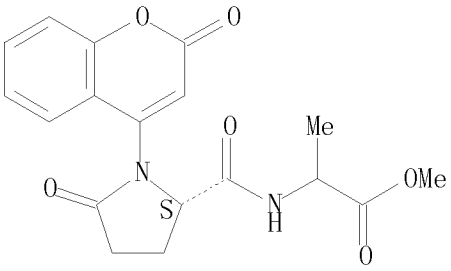
L7 ANSWER 75 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1997:439310 CAPLUS
DN 127:161323
OREF 127:31270h,31271a
TI New crystalline N-(coumarin-4-yl)-L-pyroglutamic acid. The first synthesis and application to 1H NMR optical purity determination of alcohols and amines
AU Nagasawa, Kazuo; Okazaki, Ritsuko; Yamashita, Asami; Ito, Keiichi; Wada, Kohji
CS Hokkaido College of Pharmacy, Otaru, 047-02, Japan
SO Heterocycles (1997), 45(6), 1047-1050
CODEN: HTCYAM; ISSN: 0385-5414
PB Japan Institute of Heterocyclic Chemistry
DT Journal
LA English
AB Condensation of 3-phenylsulfonyl-4-chlorocoumarin with tert-Bu L-pyroglutamate potassium salt followed by desulfonylation and ester-cleavage yielded the novel crystalline N-(coumarin-4-yl)-L-pyroglutamic acid [CPYRO-OH], which shows evidence of being a versatile and reliable 1H NMR optical purity determination agent for chiral alcs. and amines.
IT 193685-09-5P 193685-10-8P 193685-11-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of coumarinyl-L-pyroglutamic acid and use as chiral derivatizing agent for alcs. and amines)
RN 193685-09-5 CAPLUS
CN Glycine, 5-oxo-1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl-2-phenyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



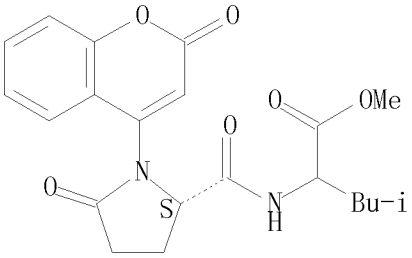
RN 193685-10-8 CAPLUS
CN Alanine, 5-oxo-1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 193685-11-9 CAPLUS
CN Leucine, 5-oxo-1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

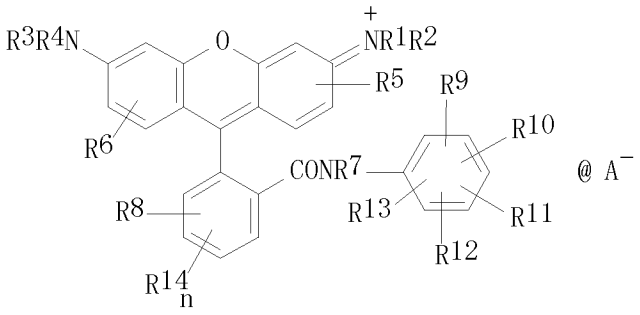


OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 76 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1996:87653 CAPLUS
DN 124:148952
OREF 124:27661a,27664a
TI Water-based magenta color recording liquids
IN Yamada, Masahiro; Murata, Jukichi
PA Mitsubishi Kagaku KK, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07292303	A	19951107	JP 1994-91211	19940428
PRAI JP 1994-91211		19940428		

OS MARPAT 124:148952
GI



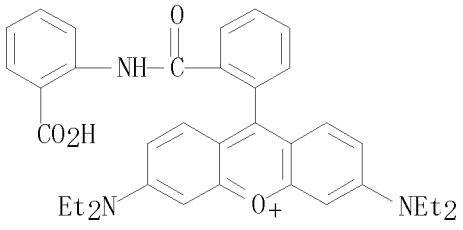
I

AB Title storage-stable liqs., useful for paper to give water-resistant printed image, contain water-based mediums and xanthene derivs. I [A = anion; R1-R4 = (un)substituted (cyclo)alkyl; R1 and R2, or R3 and R4 may form saturated heterocyclic ring with N; R5, R6 = H, C1-12 alkyl, halo; R7 = H, (un)substituted (cyclo)alkyl; R8-R13 = H, halo, C1-6 alkyl, C1-6 alkoxy, OH, NO2, carboxy, sulfonic acid; R14 = H, halo; n = 1-3]. Thus, an ink comprising I (A = Cl; R1-R4 = Et; R9 = 2-CO2H; R8, R10-R14 = H) 3, diethylene glycol 10, iso-Pr alc. 3, and water to 100 parts was used in ink-jet printing on paper to give magenta image with high color d.

IT 173423-07-9 173423-08-0 173423-09-1
173423-10-4 173423-11-5 173423-12-6
173423-13-7 173423-14-8 173423-15-9
173423-16-0 173423-17-1 173423-18-2
173423-19-3 173423-20-6 173423-21-7
173423-22-8 173423-23-9 173423-24-0
173423-25-1 173423-26-2 173423-27-3
173423-28-4 173423-29-5 173423-30-8
173423-31-9 173423-32-0 173423-33-1
173423-34-2 173423-35-3 173423-36-4
173423-37-5 174423-22-4
RL: TEM (Technical or engineered material use); USES (Uses)
(dyes; water-based jet printing inks containing magenta xanthene-type dyes)

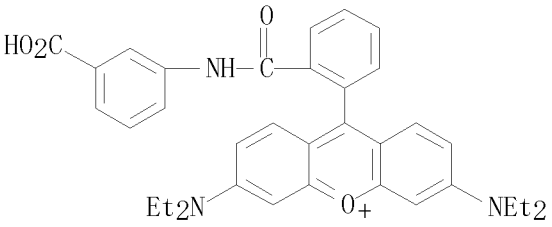
RN 173423-07-9 CAPLUS

CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



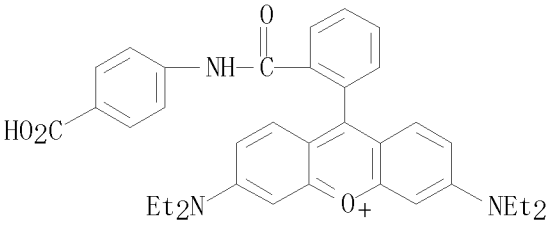
RN 173423-08-0 CAPLUS

CN Xanthylium, 9-[2-[[(3-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



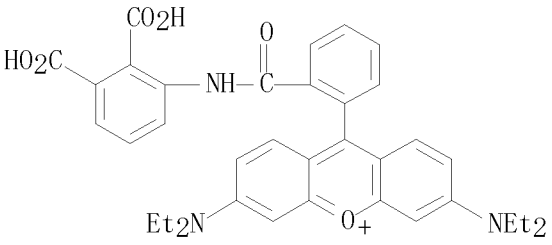
● Cl^-

RN 173423-09-1 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



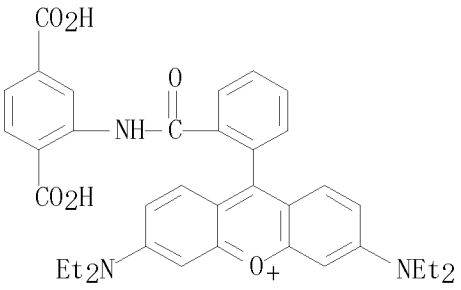
● Cl^-

RN 173423-10-4 CAPLUS
CN Xanthylium, 9-[2-[[(2,3-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



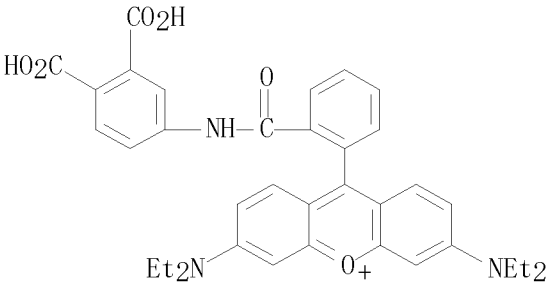
● Cl^-

RN 173423-11-5 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



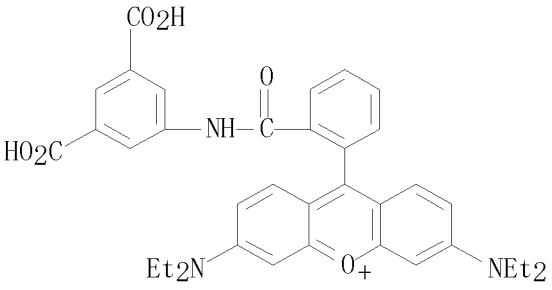
● Cl⁻

RN 173423-12-6 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

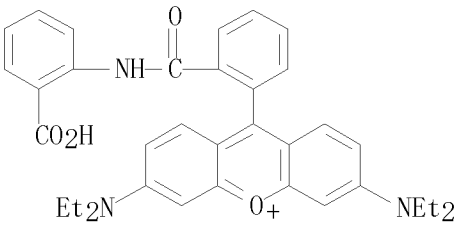
RN 173423-13-7 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

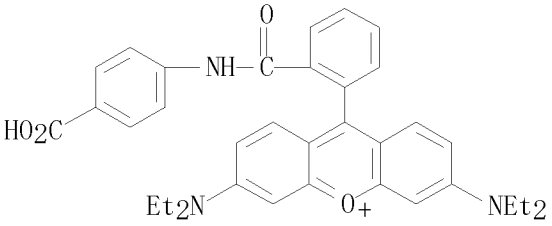
RN 173423-14-8 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-

bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



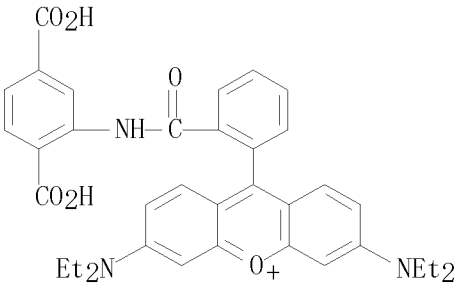
● Br^-

RN 173423-15-9 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



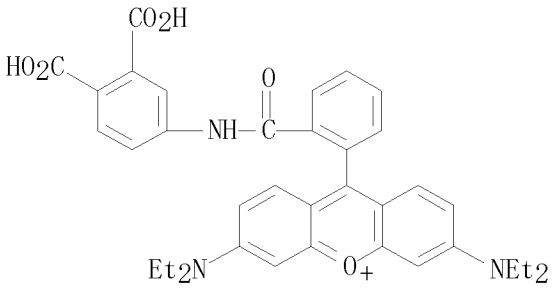
● Br^-

RN 173423-16-0 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



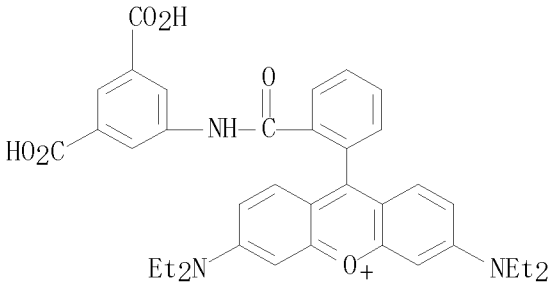
● Br^-

RN 173423-17-1 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



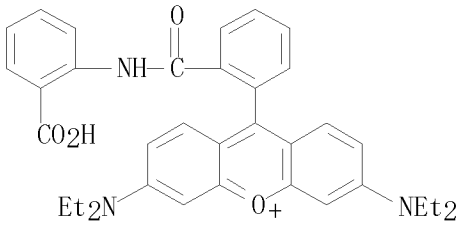
● Br^-

RN 173423-18-2 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, bromide (1:1) (CA INDEX NAME)



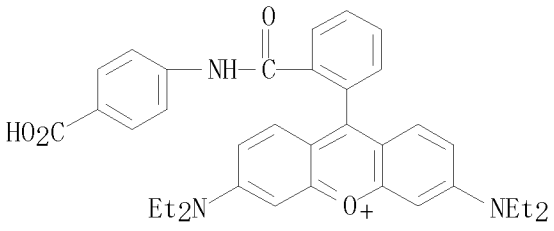
● Br^-

RN 173423-19-3 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



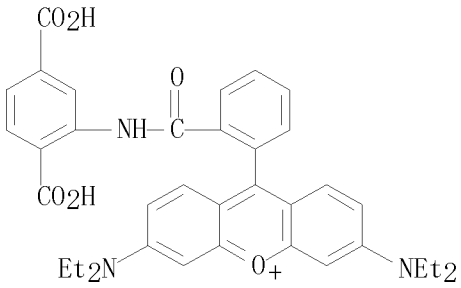
● I^-

RN 173423-20-6 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



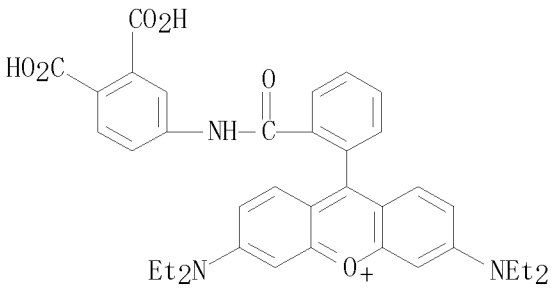
● I^-

RN 173423-21-7 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



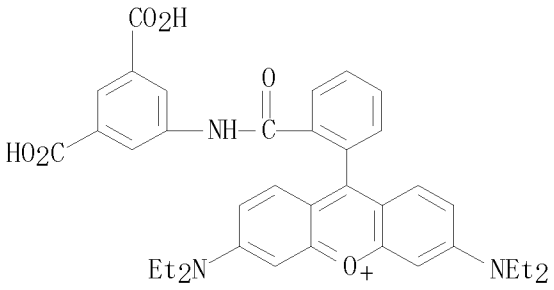
● I^-

RN 173423-22-8 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



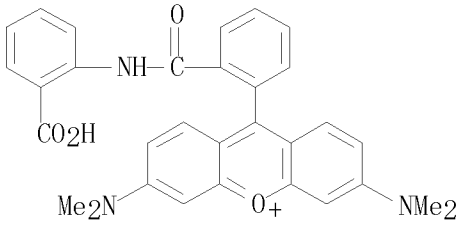
● I^-

RN 173423-23-9 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, iodide (1:1) (CA INDEX NAME)



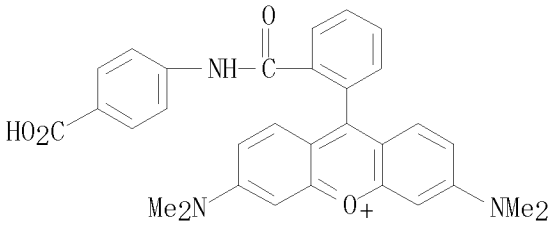
● I^-

RN 173423-24-0 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



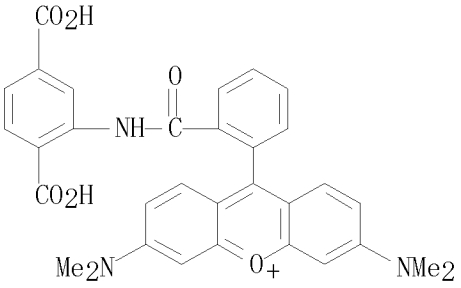
● Cl^-

RN 173423-25-1 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



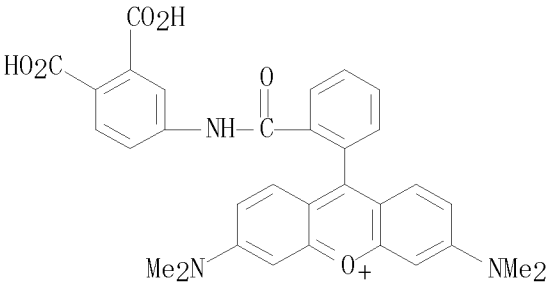
● Cl^-

RN 173423-26-2 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



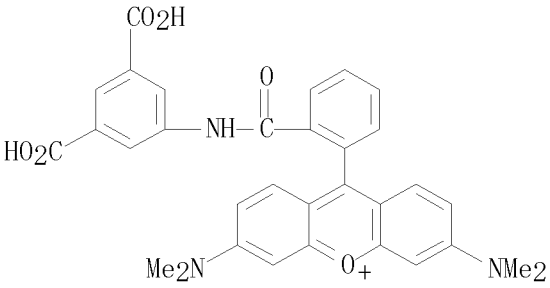
● Cl⁻

RN 173423-27-3 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

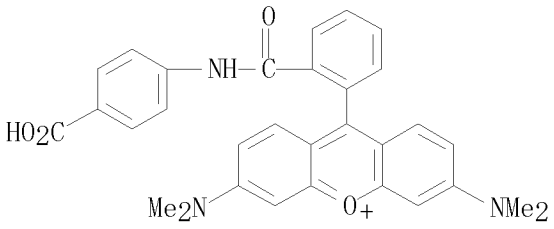
RN 173423-28-4 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

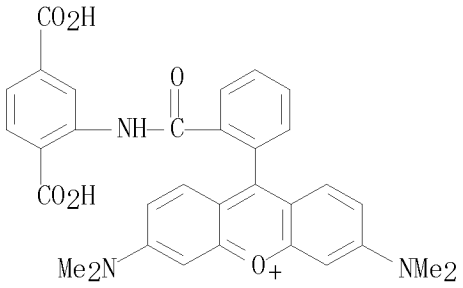
RN 173423-29-5 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-

bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



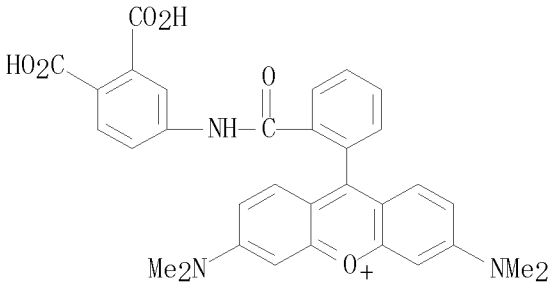
● Br^-

RN 173423-30-8 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



● Br^-

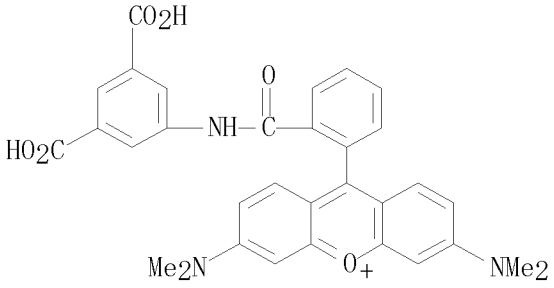
RN 173423-31-9 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



● Br^-

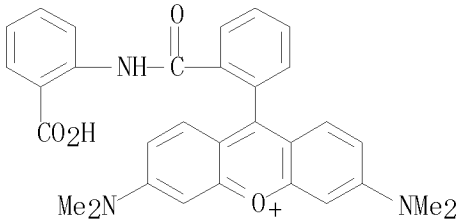
RN 173423-32-0 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-

bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



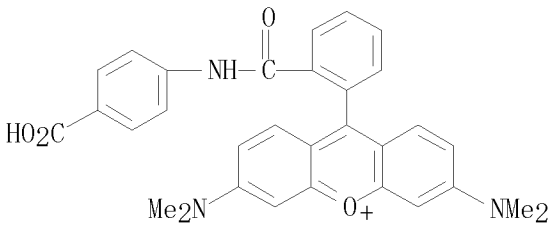
● Br^-

RN 173423-33-1 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



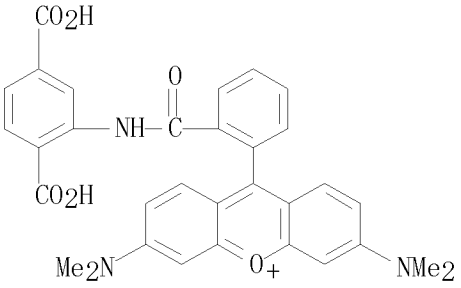
● I^-

RN 173423-34-2 CAPLUS
CN Xanthylium, 9-[2-[[(4-carboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



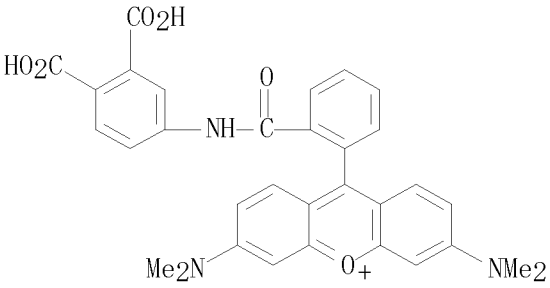
● I^-

RN 173423-35-3 CAPLUS
CN Xanthylium, 9-[2-[[(2,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



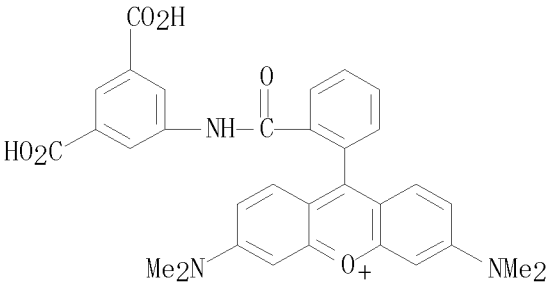
● I^-

RN 173423-36-4 CAPLUS
CN Xanthylium, 9-[2-[[(3,4-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



● I^-

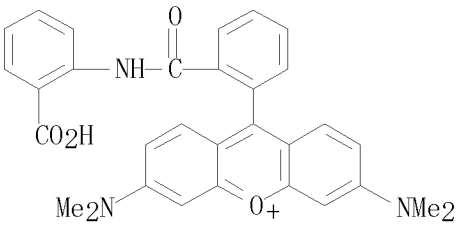
RN 173423-37-5 CAPLUS
CN Xanthylium, 9-[2-[[(3,5-dicarboxyphenyl)amino]carbonyl]phenyl]-3,6-bis(dimethylamino)-, iodide (1:1) (CA INDEX NAME)



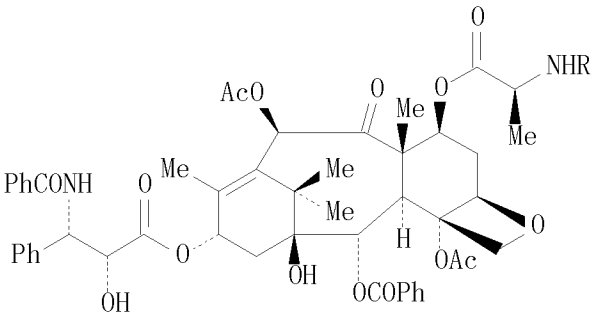
● I^-

RN 174423-22-4 CAPLUS
CN Xanthylium, 9-[2-[[(2-carboxyphenyl)amino]carbonyl]phenyl]-3,6-

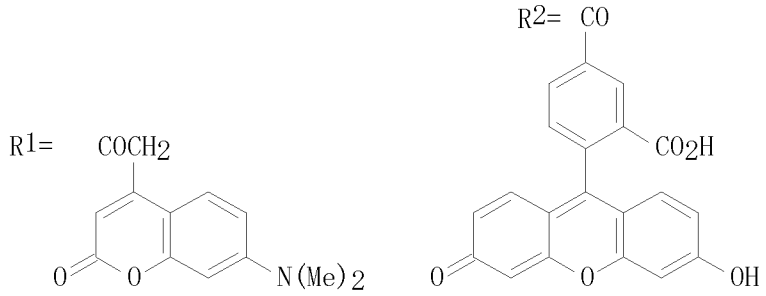
bis(dimethylamino)-, bromide (1:1) (CA INDEX NAME)



L7 ANSWER 77 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1996:48115 CAPLUS
DN 124:146494
OREF 124:27261a,27264a
TI New fluorescent water-soluble taxol derivatives
AU Souto, Andre A.; Acuna, A. Ulises; Andreu, Jose M.; Barasoain, Isabel; Abal, Miguel; Amat-Guerri, Francisco
CS Inst. Quim. Org., CSIC, Madrid, E-28006, Spain
SO Angewandte Chemie, International Edition in English (1996), Volume Date 1995, 34(23/24), 2710-12
CODEN: ACIEAY; ISSN: 0570-0833
PB VCH
DT Journal
LA English
GI



I



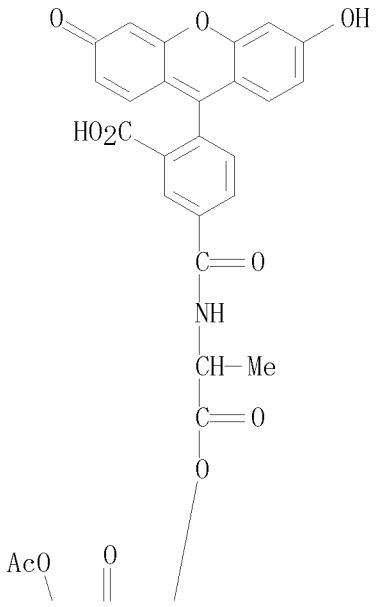
AB Here we report the synthesis and characterization of two new bioactive fluorescent taxol derivs., I (R = R1, R2), and provide an example of their use in the first direct visualization of the taxol-microtubule system in cultured cells.

IT 173355-20-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of new fluorescent water-soluble taxol derivs.)

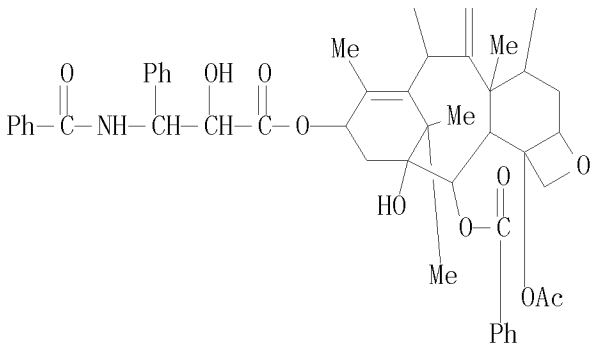
RN 173355-20-9 CAPLUS

CN L-Alanine, N-[3-carboxy-4-(6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]-, 6,12b-bis(acetyloxy)-9-[3-(benzoylamino)-2-hydroxy-1-oxo-3-phenylpropoxy]-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-4-yl ester, [2aR-[2aα,4β,4aβ,6β,9α(2R*,3S*),11.alpha.,12α,12aα,12bα]]- (9CI) (CA INDEX NAME)

PAGE 1-A

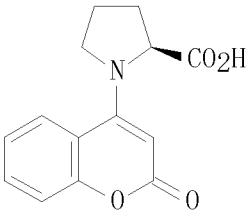


PAGE 2-A



OSC.G 38 THERE ARE 38 CAPLUS RECORDS THAT CITE THIS RECORD (38 CITINGS)

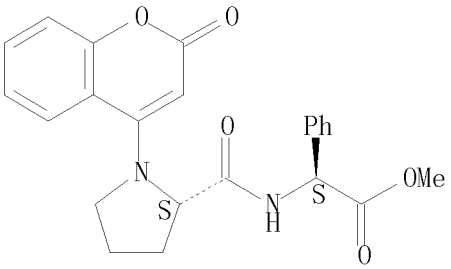
L7 ANSWER 78 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1995:440289 CAPLUS
DN 123:112654
OREF 123:20145a,20148a
TI N-Coumarinyl-L-proline, a novel chiral derivatizing agent for 1H NMR determination of enantiomeric purities of alcohols and amines
AU Nagasawa, Kazuo; Yamashita, Asami; Katoh, Satoru; Ito, Keiichi; Wada, Kohji
CS Hokkaido Coll. Pharmacy, Otaru, 047-02, Japan
SO Chemical & Pharmaceutical Bulletin (1995), 43(2), 344-6
CODEN: CPBTAL; ISSN: 0009-2363
PB Pharmaceutical Society of Japan
DT Journal
LA English
OS CASREACT 123:112654
GI



I

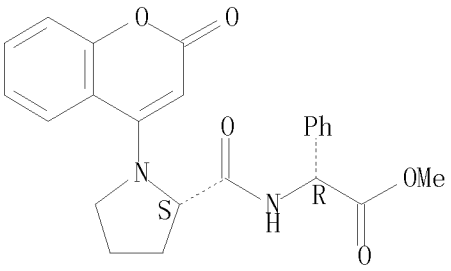
AB Title compound I, readily prepared from proline tert-Bu ester and 4-chlorocoumarin, was proved to be an efficient and useful chiral derivatizing agent by 1H NMR inspection of the resulting diastereomeric esters and amides.
IT 165821-36-3P 165821-37-4P 165821-38-5P
165821-39-6P 165821-40-9P 165821-41-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of coumarinyl-L-proline, as chiral derivatizing agent for proton NMR determination of enantiomeric purities of alcs. and amines)
RN 165821-36-3 CAPLUS
CN Glycine, N-[1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl]-L-2-phenyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



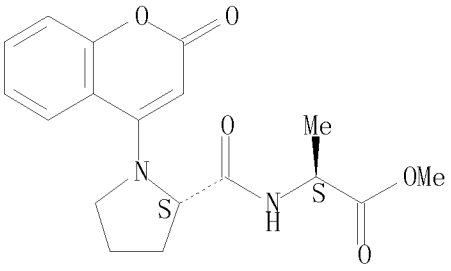
RN 165821-37-4 CAPLUS
CN Glycine, N-[1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl]-D-2-phenyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



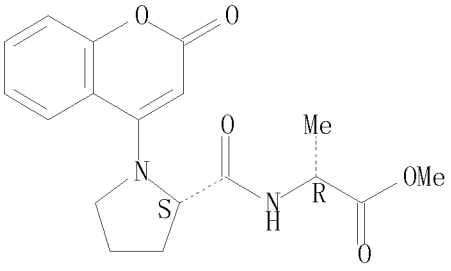
RN 165821-38-5 CAPLUS
CN L-Alanine, N-[1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



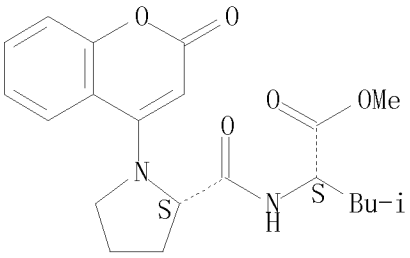
RN 165821-39-6 CAPLUS
CN D-Alanine, N-[1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



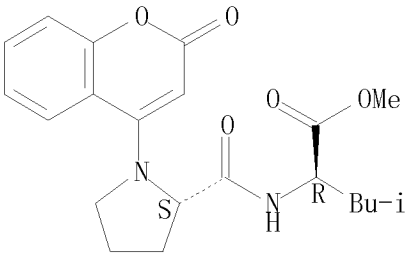
RN 165821-40-9 CAPLUS
CN L-Leucine, N-[1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 165821-41-0 CAPLUS
CN D-Leucine, N-[1-(2-oxo-2H-1-benzopyran-4-yl)-L-prolyl]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L7 ANSWER 79 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1993:665054 CAPLUS
DN 119:265054
OREF 119:47285a,47288a
TI Site-directed double fluorescent tagging of human renin and collagenase (MMP-1) substrate peptides using the periodate oxidation of N-terminal serine. An apparently general strategy for provision of energy-transfer substrates for proteases
AU Geoghegan, Kieran F.; Emery, Michael J.; Martin, William H.; McColl, Alexander S.; Daumy, Gaston O.
CS Cent. Res. Div., Pfizer Inc., Groton, CT, 06340, USA
SO Bioconjugate Chemistry (1993), 4(6), 537-44
CODEN: BCCHES; ISSN: 1043-1802
DT Journal
LA English
AB Periodate in neutral aqueous solution rapidly converts N-terminal Ser or Thr to an α-N-glyoxylyl moiety that can serve as the locus for incorporation of a modifying group. The usefulness of this procedure has been further illuminated in a route to "energy-transfer" substrates for endoproteases. Each such substrate is an oligopeptide cleavable by a proteinase, but modified (usually at its termini) with two chromophores that form an energy donor-acceptor pair. Production of these substrates is an exercise in double site-directed peptide modification. The new route is composed of three steps, beginning from an unprotected peptide in which a sequence recognized by the pertinent enzyme is placed between N-terminal Ser and C-terminal Lys. Lys may not occur elsewhere in the peptide. Periodate oxidation converts the N-terminal Ser to an α-N-glyoxylyl group, which is then allowed to form a hydrazone with the carbohydrazide derivative Lucifer Yellow CH, a hydrophilic fluor with a large Stokes shift (excitation maximum, 425 nm; emission maximum, 525 nm). Finally, the modified

peptide is allowed to react with 5-carboxytetramethylrhodamine succinimidyl ester. This reaction selectively modifies the ε-amino group of C-terminal Lys, the only amino group remaining in the peptide. 5-Carboxytetramethylrhodamine strongly (>90%) quenches Lucifer Yellow fluorescence by resonance energy transfer in the intact substrate, but enzyme-catalyzed cleavage eliminates the quenching. The resulting increase in fluorescence may be used to follow the hydrolytic reaction. New substrates for human renin and fibroblast collagenase (matrix metalloproteinase-1) have been made to illustrate the procedure. Each was characterized by structural, spectroscopic, and kinetic methods and furnished a continuous fluorescence-based assay for its resp. proteinase. It appears that the scheme can be applied to the preparation of comparable substrates for other proteinases.

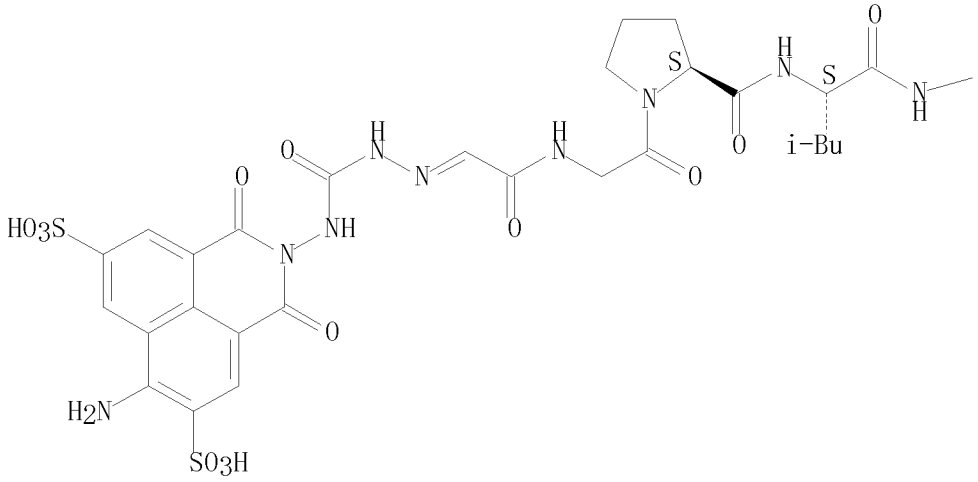
IT 151368-68-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with matrix metalloproteinase 1 of human of, proteinase determination by continuous fluorescence-based assay in relation to)

RN 151368-68-2 CAPLUS

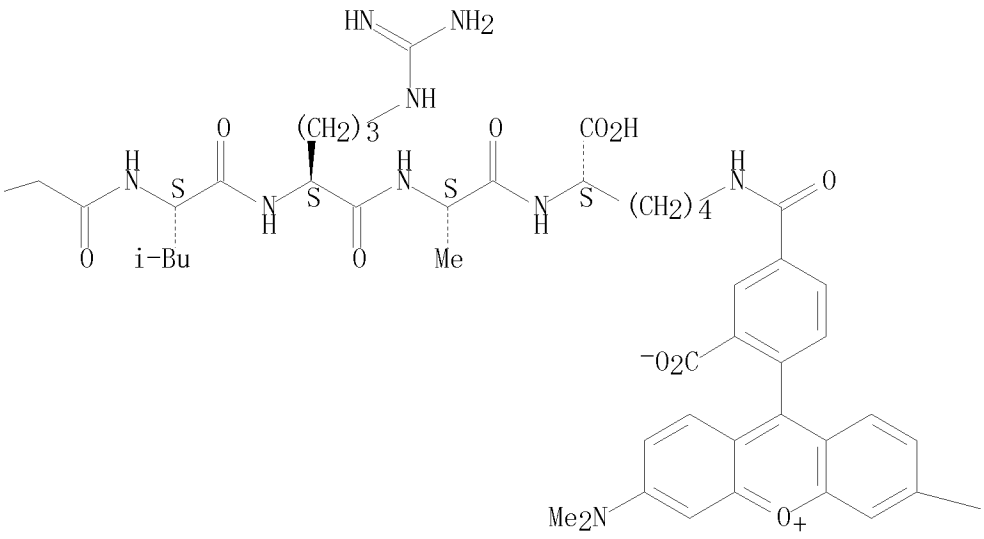
CN L-Lysine, N2-[N-[N2-[N-[N-[N-[1-[N-[[[[(6-amino-1,3-dioxo-5,8-disulfo-1H-benz[de]isoquinolin-2(3H)-yl)amino]carbonyl]hydrazono]acetyl]glycyl]-L-prolyl]-L-leucyl]glycyl]-L-leucyl]-L-arginyl]-L-alanyl]-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



PAGE 1-C

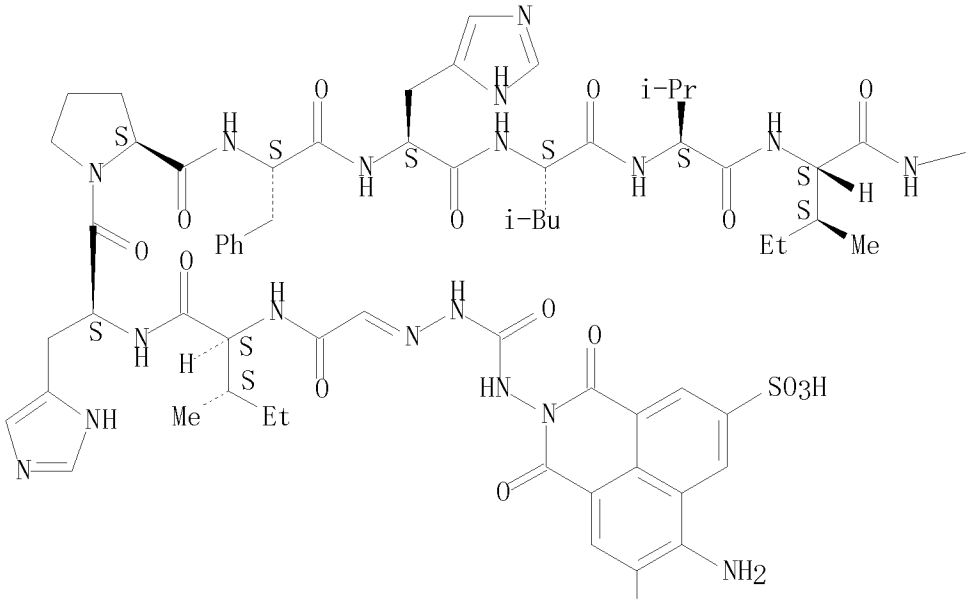
IT 151368-64-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with renin of human of, proteinase determination by continuous fluorescence-based assay in relation to)

RN 151368-64-8 CAPLUS

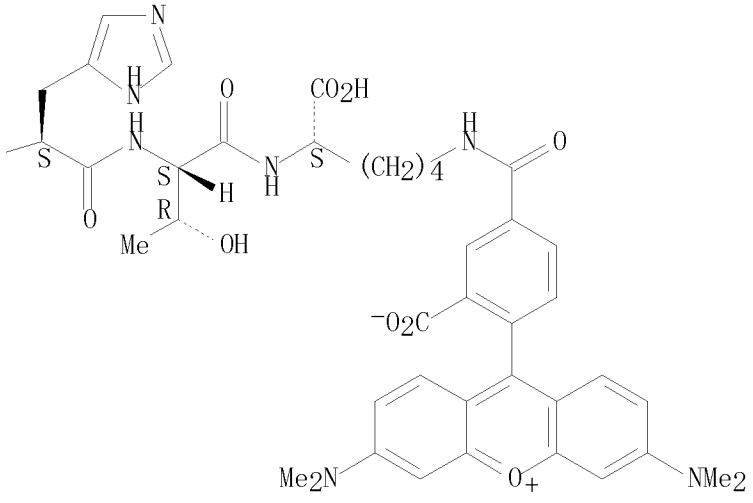
CN L-Lysine, N2-[N-[N-[N-[N-[N-[N-[1-[N-[N-[[[[(6-amino-1,3-dioxo-5,8-disulfo-1H-benz[de]isoquinolin-2(3H)-yl)amino]carbonyl]hydrazono]acetyl]-L-isoleucyl]-L-histidyl]-L-prolyl]-L-phenylalanyl]-L-histidyl]-L-leucyl]-L-valyl]-L-isoleucyl]-L-histidyl]-L-threonyl]-N6-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



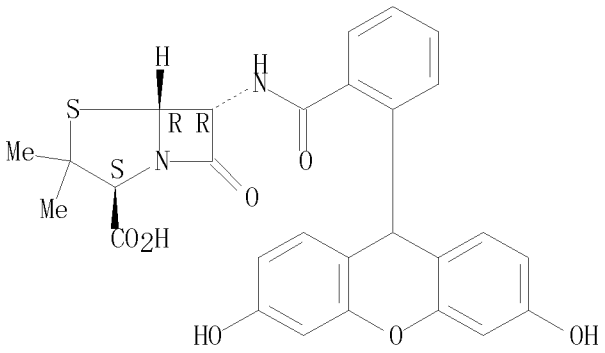
PAGE 2-A

OSC.G 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L7 ANSWER 80 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1993:490472 CAPLUS
DN 119:90472
OREF 119:16177a,16180a
TI A new, highly sensitive method for the detection and quantification of

penicillin-binding proteins
AU Galleni, Moreno; Lakaye, Bernard; Lepage, Sophie; Jamin, Marc; Thamm, Iris; Joris, Bernard; Frere, Jean Marie
CS Cent. Ing. Prot., Univ. Liege, Sart-Tilman, B-4000, Belg.
SO Biochemical Journal (1993), 291(1), 19-21
CODEN: BIJOAK; ISSN: 0306-3275
DT Journal
LA English
AB A new method for the identification and quantification of penicillin-binding proteins is described which uses fluorescein-coupled penicillins. It allows the rapid detection of 0.2 pmol with the naked eye and 2 fmol with the help of an A.L.F. automatic DNA sequencer. Direct labeling can also be performed on whole bacterial cells.
IT 149202-80-2
RL: ANST (Analytical study)
(in penicillin-binding proteins determination by fluorometry)
RN 149202-80-2 CAPLUS
CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[2-(3,6-dihydroxy-9H-xanthen-9-yl)benzoyl]amino]-3,3-dimethyl-7-oxo-, [2S-(2α,5α,6β)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

L7 ANSWER 81 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1991:160953 CAPLUS
DN 114:160953
OREF 114:27139a,27142a
TI Artificial increase of the light-harvesting ability of photosynthetic units in isolated chloroplasts
AU Sorokin, E. M.; Bobylev, G. S.; Molotkovskii, Y. G.
CS K. A. Timiryazev Inst. Plant Physiol., Moscow, 127276, USSR
SO Photosynthesis Research (1990), 26(2), 87-91
CODEN: PHRSDI; ISSN: 0166-8595
DT Journal
LA English
AB A synthetic fluorochromous lipid, rhodaminyl triglyceride (rhodaminyl TG), was intercalated into isolated thylakoid membranes of chloroplasts up to 30 mols./100 mols. chlorophyll. An absorption band appeared in the yellow-green spectrum, its intensity being comparable with the red and blue chlorophyll bands. The energy absorbed by rhodaminyl TG was transferred through chlorophyll to the reaction centers of photosystems I and II, inducing an addnl. electron flow of .apprx.30%. The exogenous fluorochromes dissolved in the lipid function as accessory pigment which significantly modifies the spectral sensitivity of the photosynthetic process. The energy transfer from rhodaminyl TG to chlorophyll occurs by

a mechanism of the inductive resonance type.

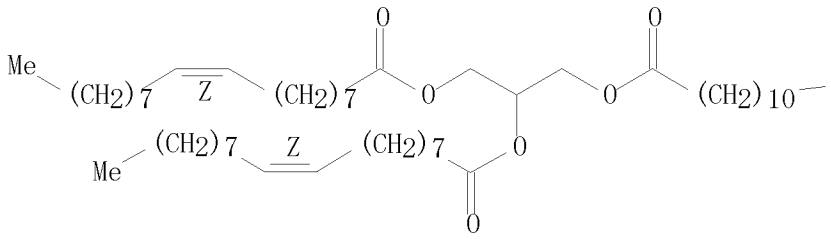
IT 133179-33-6
RL: BIOL (Biological study)
(light-harvesting energy transfer enhancement by, intercalated into thylakoids)

RN 133179-33-6 CAPLUS

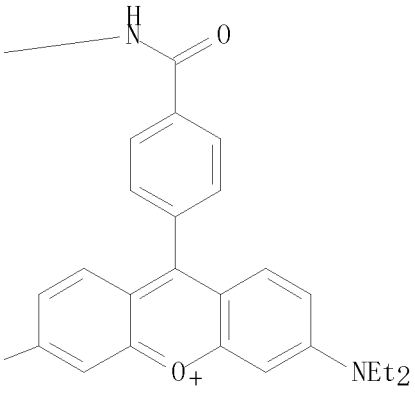
CN Xanthylium, 9-[4-[[[11-[2,3-bis[[(9Z)-1-oxo-9-octadecen-1-yl]oxy]propoxy]-11-oxoundecyl]amino]carbonyl]phenyl]-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



L7 ANSWER 82 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1991:38439 CAPLUS

DN 114:38439

OREF 114:6623a,6626a

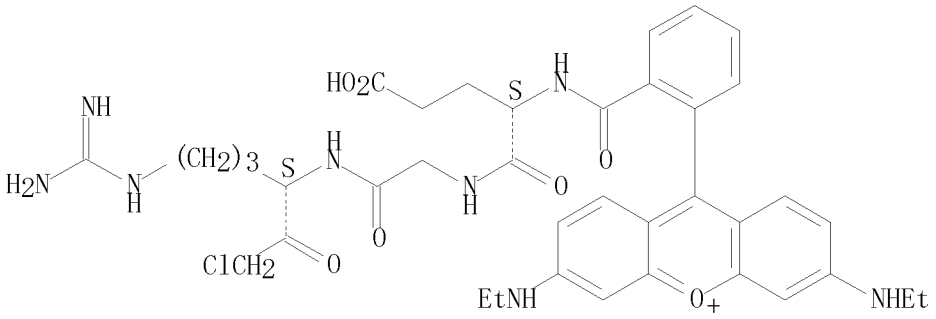
TI Peptidylchloromethyl ketone substrates for the detection of catalytically

active serine proteases byimmuno assay
IN Mann, Kenneth G.; Williams, Brady; Tracy, Russell P.
PA University of Vermont and State Agricultural College, USA
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9003577	A1	19900405	WO 1989-US4192	19890926
	W: JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	EP 436654	A1	19910717	EP 1989-911689	19890926
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 04501460	T	19920312	JP 1989-510877	19890926
	US 6242173	B1	20010605	US 1992-833646	19920207
PRAI	US 1988-252506	A	19880930		
	WO 1989-US4192	W	19890926		

OS MARPAT 114:38439
AB Substituted peptidyl-chloromethyl ketone derivs. are irreversible inhibitors of serine proteinases. The peptide (1-3 amino acids) gives the compound specificity for the active site of a particular proteinase. Substitution with a reporting group (e.g. biotin, a fluorophore) allows these substrates to be used in immunoassays for catalytically active serine proteinases. These reagents measure active sites rather than cross-reacting material (e.g. zymogens) and are therefore particularly suitable for the determination of serine proteinase activity of blood coagulation factors. Biotinyl-ε-aminocaproyl-D-phenylalanyl-L-prolyl-L-arginine chloromethyl ketone (BC-PPACK) was synthesized by standard chemical and coupled to tissue-type plasminogen activator (tPA) to give tPA-BCPPACK. This was bound to avidin coated microtier plates and the bound tPA measured by immunoassay using peroxidase-coupled antibody. The standard curve showed a lower limit of sensitivity of 2 ng tPA/mL with test samples of 500 ng tPA/mL accurately measured.
IT 121593-25-7
RL: BIOL (Biological study)
(active site-specific fluorescent reagent for serine proteinases, immunoassays in relation to)
RN 121593-25-7 CAPLUS
CN Glycinamide, N-[2-[3,6-bis(ethylamino)xanthylium-9-yl]benzoyl]-L-α-glutamyl-N-[4-[(aminoiminomethyl)amino]-1-(chloroacetyl)butyl]-, chloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

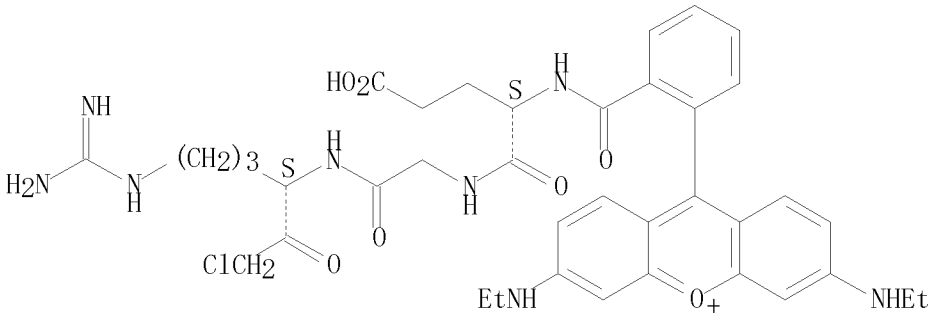
OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 83 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1989:590099 CAPLUS
DN 111:190099
OREF 111:31511a,31514a
TI Zymogen/enzyme discrimination using peptide chloromethyl ketones
AU Williams, E. Brady; Krishnaswamy, Sriram; Mann, Kenneth G.
CS Health Sci. Complex, Univ. Vermont, Burlington, VT, 05405, USA
SO Journal of Biological Chemistry (1989), 264(13), 7536-45
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Glutamylglycinylarginyl chloromethyl ketone, tyrosylglycinylarginyl chloromethyl ketone, and phenylalanylprolylarginyl chloromethyl ketone have been labeled at their N termini using fluorescein, rhodamine-X, lissamine-rhodamine, pyrene, and the 1,5-, 2,5-, and 2,6-dimethylaminonaphthalene-1-sulfonyl moieties. These peptidyl chloromethyl ketones have also been modified by incorporation of biotin and ε-amino caproyl biotin. The ability of these various chloromethyl ketones to be incorporated into a collection of zymogen-enzyme pairs has been evaluated using a variety of coagulation and fibrinolytic proteins. All labeled chloromethyl ketones were efficiently incorporated into the proteases tested, with the exception of urokinase which was refractory to inhibition by phenylalanylprolylarginyl chloromethyl ketone derivs. No modification of any zymogen species was observed even under conditions designed to detect minimal reactivity. When enzymes were modified using chloromethyl ketones labeled with ε-amino caproylbiotin, the modified proteins readily reacted with avidin under a variety of different conditions. The observed reactivity with avidin was used in enzyme blotting following electrophoretic resolution of polypeptide chains and to remove active enzyme present in enzyme-zymogen mixts. These reagents have been used to evaluate the potential for active site expression by the single-chain human factor VII mol. Studies conducted with tissue factor, phospholipids, and Ca using factor X as substrate demonstrate that no activity can be obtained without initial activation of either factor X to factor Xa or factor VII to factor VIIa by an external source. Thus, factor VII is a true zymogen, inert in the blood clotting process prior to its cleavage to factor VIIa.
IT 121593-25-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and reaction with blood coagulation and fibrinolysis zymogen-proteinase pairs of human, zymogen-enzyme discrimination in relation to)

RN 121593-25-7 CAPLUS
CN Glycinamide, N-[2-[3,6-bis(ethylamino)xanthylium-9-yl]benzoyl]-L-α-glutamyl-N-[4-[(aminoiminomethyl)amino]-1-(chloroacetyl)butyl]-, chloride, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Cl^-

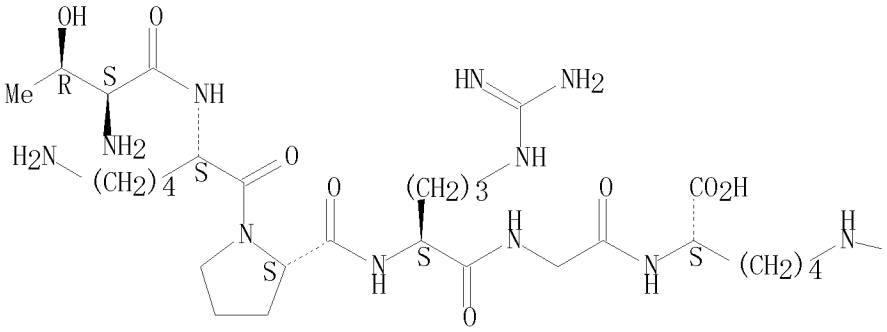
OSC.G 22 THERE ARE 22 CAPLUS RECORDS THAT CITE THIS RECORD (23 CITINGS)

L7 ANSWER 84 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1982:542974 CAPLUS
DN 97:142974
OREF 97:23799a,23802a
TI Tuftsin analogs for probing its specific receptor site on phagocytic cells
AU Gottlieb, Philip; Beretz, Alain; Fridkin, Mati
CS Dep. Org. Chem., Weizmann Inst. Sci., Rehovot, IL-76-100, Israel
SO European Journal of Biochemistry (1982), 125(3), 631-8
CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
AB Six new analogs of the phagocytosis-stimulating peptide tuftsin were synthesized with the eventual aim of characterizing and isolating the tuftsin receptor. These analogs can be classified as follows: (1) photoaffinity labeling analogs for the specific covalent attachment to the tuftsin receptor; (2) fluorescent analogs containing either rhodamine or dansyl fluorescent probes for microscopic visualization of the tuftsin receptor; (3) biotin analog for separation and purification of the receptor by affinity methods. The various synthetic pathways employed to introduce sensitive prosthetic groups into the tuftsin mol. while preserving its biol. activity are described herein. Activities of the various analogs synthesized as compared to tuftsin in biol. and receptor-binding assays are described. All analogs are able to stimulate phagocytosis of the macrophage cell as well as compete specifically for tuftsin binding sites on these cells.
IT 83103-14-4P
RL: PREP (Preparation)
(preparation of, as rhodamine analog of tuftsin)
RN 83103-14-4 CAPLUS
CN L-Lysine, N6-[2-[3,6-bis(dimethylamino)xanthylium-9-yl]-5-isothiocyanatobenzoyl]-N2-[N-[N2-[1-(N2-L-threonyl-L-lysyl)-L-prolyl]-L-

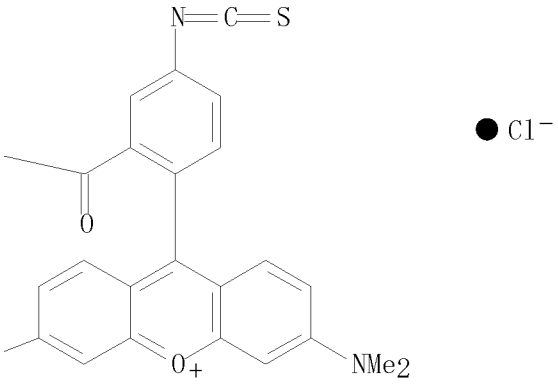
arginyl]glycyl]-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

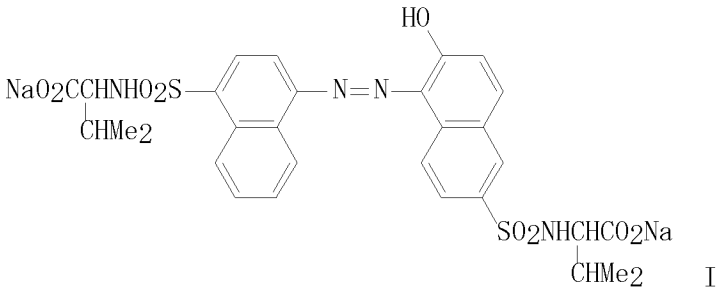


OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L7 ANSWER 85 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1982:511439 CAPLUS
DN 97:111439
OREF 97:18541a,18544a
TI Water-thinned inks
PA Pentel Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

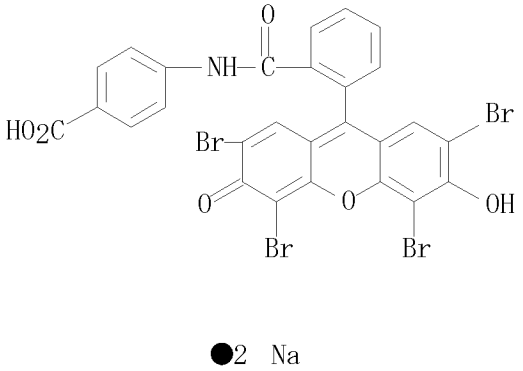
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 57059969 A 19820410 JP 1980-135557 19800929
JP 64000429 B 19890106
PRAI JP 1980-135557 19800929
GI



I

AB Water-thinned inks giving water-resistant prints contain water-miscible organic solvents and amino acid-modified acid dyes. For example, a washable red ink was prepared from the azo dye I [82848-26-8] 10, HOCH2CH2OH 20, and water 70 parts.
IT 82848-25-7
RL: USES (Uses)
(dyes, for washable inks)
RN 82848-25-7 CAPLUS
CN Benzoic acid, 4-[[2-(2,4,5,7-tetrabromo-6-hydroxy-3-oxo-3H-xanthen-9-yl)benzoyl]amino]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L7 ANSWER 86 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1980:600496 CAPLUS
DN 93:200496
OREF 93:31931a,31934a
TI Cell lineage analysis by intracellular injection of fluorescent tracers
AU Weisblat, David A.; Zackson, Saul L.; Blair, Seth S.; Young, Janis D.
CS Dep. Mol. Biol., Univ. California, Berkeley, CA, 94720, USA
SO Science (Washington, DC, United States) (1980), 209(4464), 1538-41
CODEN: SCIEAS; ISSN: 0036-8075
DT Journal
LA English
AB Cell lineages during development of the leech Helobdella triserialis are revealed by injection of a fluorescent peptide, rhodamine-D-peptide, into

identified embryonic cells. Use of this peptide together with a nuclear stain shows a stereotypic cleavage pattern of stem cells and their progeny. Combined injection of rhodamine-D-peptide and Pronase demonstrates the arrest of stem cell production in the Pronase-injected teloblast.

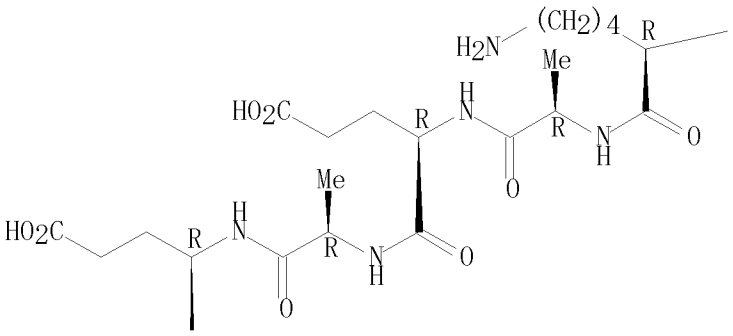
IT 75403-31-5
RL: ANST (Analytical study)
(in cell lineage anal., in embryo of leech)

RN 75403-31-5 CAPLUS

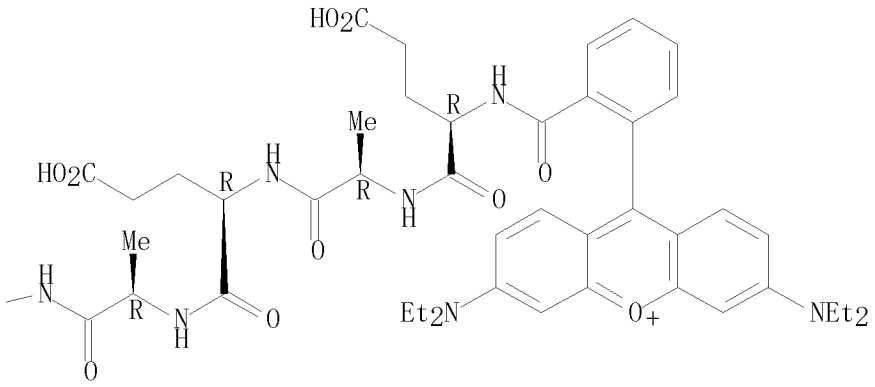
CN Glycine, N-[N2-[N-[N-[N-[N-[N2-[N-[N-[N-[N-[2-[3,6-bis(diethylamino)xanthylium-9-yl]benzoyl]-D-α-glutamyl]-D-alanyl]-D-α-glutamyl]-D-alanyl]-D-lysyl]-D-alanyl]-D-α-glutamyl]-D-alanyl]-D-α-glutamyl]-D-alanyl]-D-lysyl]-, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

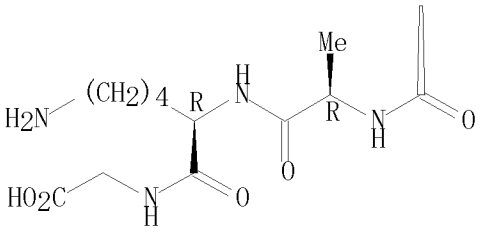
PAGE 1-A



PAGE 1-B



PAGE 2-A



● Cl^-

OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L7 ANSWER 87 OF 87 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1964:454876 CAPLUS
DN 61:54876
OREF 61:9503f-h,9504a-c
TI 6-Aminopenicillanic acid derivatives
IN Feher, Odon; Vargha, Laszlo; Horvath, Istvan
PA Gyogyszeripari Kutato Intezet
SO 10 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	HU 151436		19640623	HU	19621115
PRAI	HU		19621115		

AB A solution of 40 g. 1,5-diphenyl-3-methylpyrazole-4-carbonyl chloride in 240 ml. Me2CO was added dropwise with stirring to a mixture of 29 g. 6-aminopenicillanic acid (I) in 870 ml. 5% aqueous NaHCO3 solution and 630 ml. Me2CO at 0°, the mixture stirred 1 hr. at 0° and 1 hr. at 20-5° and filtered, the filtrate concentrated in vacuo at room temperature and extracted with Et2O, the aqueous phase treated with H3PO4 at 0° to pH 2, and extracted with Et2O, the organic phase washed with H2O and extracted with aqueous NaHCO3, the aqueous phase evaporated to dryness in vacuo at room temperature, and the residue treated with Me2CO to yield 35-40 g. 1,5-diphenyl-3-methyl-4-pyrazolylpenicillin Na salt, 94-9% pure, m. 250-5° (decomposition) (H2O, Me2CO-Et2O), [α]20D 111.6° (c 2, H2O). A mixture of 3.82 g. 1,3diphenyl-5-methylpyrazole-4-carboxylic acid, 30 ml. absolute Me2CO, and 1.44 ml. Et3N was treated with stirring at 0° with 1.31 ml. ClCO2Bu-iso, the mixture stirred 30 min. at 0°, a solution of 2.16 g. I in 20 ml. H2O and 1.44 ml. Et3N added, the whole stirred 1 hr. at room temperature, 15 ml. 5% aqueous NaHCO3 solution added, and the mixture extracted with Et2O, treated with H3PO4 at 0° to pH 2, and worked up as above to yield 1,3-diphenyl-5-methyl-4-pyrazolylpenicillin Na salt. 1,3,5-Triphenyl-4-pyrazolylpenicillin Na salt (59.5% pure) and 1-phenyl-3-methyl-5-(3,4,5-trimethoxyphenyl)-4-pyrazolylpenicillin Na salt were similarly prepared as in the 1st example. 1,3,5-Triphenylpyrazole carbonyl chloride, m. 125-7°, was prepared from the acid with SOCl2. The reaction of Et α-(9-xanthenecarbonyl)acetoacetate and PhNHNH2 gave 1-phenyl-3-methyl-5-(9-xanthenyl)-4-ethoxycarbonylpyrazole; hydrolysis of this gave the corresponding acid, m. 229-31°, which treated with SOCl2 gave the acid chloride (II), m. 159-61°. 1-Phenyl-3-methyl-5-(3,4,5-trimethoxyphenyl)pyrazolylcarbonyl chloride, m. 125-6°, was prepared similarly from the acid, m. 214-16°. A solution of 0.93 g. II in 36 ml. Me2CO was added as above to 0.5 g. I in 12

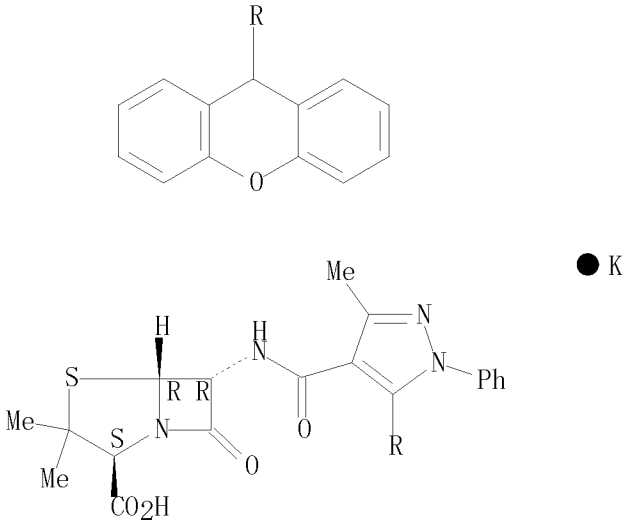
ml. 5% aqueous NaHCO3 solution and 12 ml. Me2CO at 0° ,the mixture stirred 30 min. at 10° ,Me2CO removed in vacuo at room temperature, the residue extracted with Et2O, the aqueous phase treated with H3PO4 at 0° (pH 2), and extracted again with Et2O, and the organic phase washed, dried, and mixed with a solution of 0.32 g. K heptane-3-carboxylate (III) in 1 ml. BuOH to precipitate 0.9-1.0 g. 1-phenyl-3-methyl-5-(9-xanthenyl)-4-pyrazolylpenicillin K salt, 74-7% pure. 1-Phenyl-3-methyl-5-(5-methyl-4-isoxazolyl)-4-pyrazolylpenicillin K salt was similarly prepared; the acid chloride was prepared from the corresponding acid, m. 149-51° ,with SOCl2. A solution of 1-phenyl-3-methyl-5-[3-methyl-5-(9-xanthenyl)-4-isoxazolyl]-4-pyrazolylcarbonyl chloride, m. 186-8° (acid Et ester m. 145-7°)in 50 ml. absolute CHCl3 was added to a mixture of 0.9 g. I in 20 ml. absolute CHCl3 and 1.2 ml. Et3N, the mixture stirred 2 hrs.,filtered, and washed with dilute H3PO4 and H2O at 0° ,the organic phase dried, a solution of 0.64 g. III in 3 ml. BuOH added, and the solvent removed in vacuo to yield 1-phenyl-3-methyl-5-[3-methyl-5-(9-xanthenyl]-4-isoxazolyl)-4-pyrazolylpenicillin K salt, 68.5% pure. Purity detns. were carried out according to I. F. Alicino, Ind. English Chemical Anal. Ed. 18, 619(1946).

IT 105342-15-2P, 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3,3-dimethyl-6-(3-methyl-1-phenyl-5-xanthen-9-ylpyrazole-4-carboxamido)-7-oxo-, potassium salt
RL: PREP (Preparation)
(preparation of)

RN 105342-15-2 CAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3,3-dimethyl-6-(3-methyl-1-phenyl-5-xanthen-9-ylpyrazole-4-carboxamido)-7-oxo-, potassium salt (7CI) (CA INDEX NAME)

Absolute stereochemistry.



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L3 245 SEA SSS FUL L1

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L5          125 SEA ABB=ON  PLU=ON  L4 AND CAPLUS/LC
L6            2 SEA ABB=ON  PLU=ON  L4 NOT L5
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